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MARYLAND

DEVOTED TO
AGRICULTURE, HORTICULTURE,



FARMER:

LIVE STOCK
and RURAL ECONOMY.

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The Agricultural Congress.

ADDRESS FROM PRESIDENT ROBERT BEVERLY, OF VIRGINIA.

Col. Robert Beverly, of Virginia, president of the National Agricultural Congress, has issued the following address to the farmers of the United States:

At the recent meeting of the National Agricultural Congress at Louisville, Ky., honored by election to the presidency of that body, duty devolves upon me of issuing this brief address explanatory of the aims and purposes of the organization; this earnest appeal to every farmer in the Union to extend to us his action and cordial sympathy and co operation. Everything which can affect the dignity or prosperity of agriculture is a subject of national importance, and is entitled to the respectful attention of the government of the nation, so often vauntingly declared to be "the government of the people, by the people and for the people;" yet the fact is utterly and scornfully ignored that the tillers of the soil are a clear majority of all the people.

The ultimate aim and purpose of the National Agricultural Congress is twofold: First, to arouse agriculturists themselves to a realization of this great fact, and secondly, to enforce a recognition of it upon the representatives of the people who have been delegated to administer the State and national governments. It is a fact which admits of no dispute that no prominent and influential statesman in any department of the national government either possesses or apparently desires to possess even a superficial knowledge of agriculture in any of its aspects, relations or interests. This great business, by which a majority of all the people live and through which

all have their bread, is practically unrepresented in any department of the people's government. In the executive branch they have a commissioner, who ranks only with the clerks of other departments; in the Senate they have one, and in the House of Representatives twenty-seven members in a body of more than three hundred. When we propose to remedy this improper, unreasonable and unjust state of affairs, we are scornfully told "the word agriculture is not in the constitution of the United States." We might retort, neither is the word "lawyer." We might very properly reply, If, then, the word agriculture is not in the constitution of the government of the people, of whom we are a majority, then we mean to put it there. If as a class we possess no rights, as a majority nevertheless we possess all right and all powers under the constitution and the government as they stand.

In order that agriculture may be placed upon an equitable footing in the executive branch of the government, it is believed, and we should demand, that it should be represented in the cabinet by a minister of equal influence, honor and dignity with any and all other constitutional advisers of the President, to the end that its true relations to taxation, to commerce, to finance, and all other great industries may be effectively studied and understood, and presented and defended with proper dignity and force in the councils of the nation. That such is now the case it is but idle to pretend. Farmers of America, we put it to you that it is your bounden duty to yourselves and to your posterity to use the power which belongs to you to enforce this just recognition of your dignity and your rights! If the word "agriculture" is not in the constitution, you have always found, you will ever find, when votes are

wanted, it is in every politician's mouth. We make no war upon any profession, calling or pursuit; we know full well that the prosperity of each is the prosperity of all in any well ordered community; we simply ask of our representatives a reasonable and proper recognition of our rights and this, let us cause them to understand, is what we are resolved to have. We are fifty-seven per cent. of the population of the United States; we need such organizations as shall awaken us to a comprehension of the habitual subordination of our interests to those of every other class, producing and non-producing. Such organization and such intelligent comprehension of our situation as will secure a proper representation to us in the executive and legislative branches of the government, national and State, under which we live, is one of the prime objects of our organization. It is only by and through effective organization in every county in every State that we can hope to act intelligently together to obtain practical recognition of our political powers and our political rights. Let your present representative be made to know that some of the most extensive and important interests of agriculture are to-day seriously imperiled by their failure or refusal to provide remedies adequate to the danger; that you look to them and expect of them to provide proper and sufficient appropriations of the public funds to protect the great animal industries of the country from perpetual menace and imminent danger by contagious diseases, constitutional qualms to the contrary notwithstanding. Let them know, also, that the agriculture of the country expects and requires at their hands that the benefits of the signal service be extended to the farming operations of the country, as well as to navigation, commerce and other pursuits, and that whatever organization is required, and whatever funds are necessary for such a purpose, ought to be provided without further delay, so that information of approaching storms, cold waves and inclemencies of the weather, threatening and causing destruction to agricultural products, may be timely sent to every community which railroads or telegraph lines reach, or to which warning signals can be conveyed by any means known to modern science. As one result already matured of the beneficent wisdom of the immortal

Maury, the approach of destructive storms may now be foretold two days or more in advance, surely agriculture, which bears the greatest burden of taxation, is entitled to the vast measure of protection which would accrue to her imperiled products from the general diffusion of such timely information, and thereby save to our interest and to the nation thousands of millions of dollars. If the machinery and funds necessary for the collection and distribution of such incalculably valuable forewarnings are lacking, it will be a shame to our representatives if, with an overflowing national treasury and a sufficient corps of trained scientists lacking employment, at their disposal, the machinery and the funds are not forthwith provided; and as agriculturists, we demand it.

We repeat it, that we entertain no purpose to assume an attitude of hostility to any of the great interests of the country; least of all do we entertain any purpose of assailing any actual vested right which legitimately belongs to any of the great transportation companies, but we are deeply sensible of the vital importance to all agricultural interests of cheap, speedy and safe transportation of their products to the great markets of the world. In furtherance of this great national desideratum, we shall favor at all times any State and national policy which shall foster the creation and improvement of such great commercial highways as, for example, the Mississippi river and the ship canals across the Delaware and Florida peninsulas. Such we feel would be a better direction to give to the surplus of swollen revenues, thus employing some of our surplus and idle labor, than the anticipation of the demands of the public creditor by this generation.

Space does not permit me to enter into elaborate details, but why should we not demand and receive appropriations from the national treasury for the protection of our imperiled interests, aggregating hundreds, yea, thousands, of millions of taxable values? Does the constitution really stand in the way? Do we not know that peaceful machinery is provided whereby we who are a majority of all the people of all the States may alter or even abolish that instrument, and that our right to do is "inalienable, indefeasible and indisputable?" Look at the shoal of proposed amendments to the constitution of your

country thrust with unseemly haste upon the national legislature the very first day of the current session—proposed amendments which can in no case take higher rank than mere political and partizan schemes—and say that we must sit down powerless to protect our rights.

In furtherance of purposes such as I have feebly and imperfectly set forth; in furtherance of every purpose which has for its object the advancement of the great calling we pursue, the National Agricultural Congress was itself called into existence. In furtherance of these great purposes and aims we earnestly and respectfully invoke the action, co-operation and cordial sympathy of every farmer of every section of this vast country—the home and the domain of the foremost, the mightiest and most progressive nation on earth.

I am your very obedient and humble servant,

ROBERT BEVERLY.

President National Agricultural Congress. The Plains, Virginia, Dec. 18, 1883.

Commissioner Loring's Report.

The report of Commissioner of Agriculture Loring shows that there were distributed during the year nearly 2,500,000 packages of seeds, of which more than 2,000,000 packages were furnished to congressmen. The experiments made by the department in extracting sorghum cane juice by diffusion instead of milling have been very successful and have resulted in an increase of from 25 to 30 per cent. in yield. Speaking of forestry the commissioner says: "The belief seems warranted that there is no part of the country where, with proper care, such a growth of trees may not be secured, as is desirable for the general welfare and for the comfort of the individual settler." In urging the importance of forest culture the commissioner says: "The total value of the forest products of the United States for the census year is estimated at \$700,000. In other words, our forest products exceeded in value our crops of hay, rye, oats, barley, buckwheat, potatoes and tobacco taken together they amount to ten times the value of the gold and silver, of which we make so much account, and to more than three times the value of the precious minerals and the coal and other minerals combined." The expenses of the department for the year amounted to \$455,679.

Farm Work for February.

This usually is not a very busy month with farmers, and looks to-day (Jan 8th) as if it is likely to be an unusually idle one, on account of the bad, cold weather. At this time of the year, after the ground has become saturated with snow and water, and then deep frozen, it takes a long time to become fit for good cultivation, hence the season for active farm work is likely to be delayed. This winter is very similar, if we remember aright, to that of 1879, which was a severe winter. Should the weather and condition of the land at any time during the month permit, such heavy turf or stiff lands as were not plowed during the late fall, or early winter months should now be plowed deep or subsoiled. Drains should be kept open and sufficient under-draining with tiles, be done as to thoroughly remove all surface water speedily, and all spots that are continuously wet and liable to hold water in excess, ought to be now drained. Heavy products can alone be expected from a well drained as well as a well cultivated field. In these two, consist the chief sources of plant production.

Land Plaster or Gypsum.

On every acre in small grain, one bushel of plaster mixed with 2 or 3 bushels of salt, ought to be sown this month if possible.

Fencing.

Do what fencing you can at once, and prepare the fencing stuff during bad weather, that it may be ready for use when wanted. If you intend to use wire, get it home at once, and get the posts ready, so it can be put up speedily as soon as the ground permits it to be done well solidly. We should put four wires and plant a post every rod apart. See that the starting, end and corner posts are well rammed, secured tight and properly braced. Remember a wire is only a cheap and durable fence when properly built. Once well done it will give no trouble for many years. Plant locust or pear trees every 18 or 20 feet along the line to furnish living posts for the fence, as the posts now planted may decay or want renewal.

Stock of all kinds.

During winter it will behoove farmers to give extra attention to their stock of all kinds. Give them warm quarters, good beds, pure water, enough food, including grain, and use the brush, card, or currycomb freely, upon all. Even the hog delights in a good currying, and the friction does him good. A good rubbing, brushing

and cleaning of the hair of cattle and horses, is equal to or better than a hearty meal. Keep all stock free from dirt and filth. Rub or wash off all mud from horses legs before going into the stable for the night. Keep the cattle dry, and free from the mire and muck of the barn-yard. To do this the yard should be always well littered, and thereby the manure pile will accumulate largely each day.

Tobacco.

Be diligent to embrace every good season for stripping and conditioning. Make timely arrangements for tobacco beds. Sow one or more beds this month if the ground should come in good working order. Use guano, at the rate of 300 to 400 pounds per acre, at the time of sowing, and cover with green brush quite thick. If you have plenty of brush, we like the old plan of a good burning. Lay the brush very heavy, and if not well dried brush, intersperse dry corn stalks, leaves, &c., with the brush to ensure a steady burn, until all is reduced to ashes. If a good coat of ashes be left, use no other manure. Where there are unslacked ashes in plenty, it is wasteful to use guano as the ashes will neutralize the effect of the guano. We always would prefer to dig up a new bed before burning with brush. Take a good spot with proper exposure, shrub it off, rake clean, dig it up with grubbing or hilling hoes, leave it in the rough, lay on a heavy coat of good, dry and large brush; burn well and have a thick coat of ashes left; then prepare the land as fine as for a hot bed, sow the seed, roll or tread, which is best, and we should have no fear but that you would have a fine plant bed early next Spring.

Garden Work for February.

Provide poles and trellises for climbers. Cases or upright boxes, open, for tomatoes; brush for peas, of different lengths for the varied heights of this delicious vegetable, sharpen the ends to go easily in the ground, trim the side branches neatly and tie in bundles and lay away for future use. Birch and beech twigs or limbs are the best for this purpose. Get together a supply of proper selected pine brush, to be used for the protection of early plants in Spring, against frost and high winds, and from the parching rays of the sun on such days as it sometimes in Spring shines, so hot and scorching as to burn or destroy tender plants just emerging into life. Also to protect early set-out plants and salads until they have rooted and

become well acclimated to the ever varying changes of Spring weather.

Cold Frames.—Plenty of air every day the temperature admits the raising of the sashes—as as often as the plants seem to need it, water, with tepid water.

Lettuce.—Force as much as you may require during the month. Nothing is more desirable than lettuce at this time of the year.

Radish.—Sow radish seed in a hot bed and give plenty of heat and moisture.

Peas—As soon as the state of the ground admits working, sow some rows of peas—Tom Thumb or Little Gem. Bury them 3 inches deep, in well prepared, good soil not over-rich.

Beet, Parsnip and Onion Seed, may now be sown in sufficient quantity for early use.

Potatoes.—Should be planted as early as possible—the Early Rose is the best. Plant 4 in deep in drills, 3 feet apart, and 10 inches apart in the drill. We would advise for early planting, small, well ripened whole potatoes, or large ones, cut in half. Sprinkle with plaster and ashes, and cover over with well rotted manure, then the earth, and over the whole, a thick coat of coarse stable manure, to be raked off when the vines appear above ground ready to receive their first hoeing.

Small Salading and Culinary Herbs, Parsley in particular, may now be sown and covered with leafy brush, such as pine or cedar. The beds should be in a dry, warm situation.

Small Fruits.—Prune, dig about, and manure, or mulch with strawy manure, these, such as the berries and dwarf bushes of larger fruits.

This month is when Gardening begins in earnest with our friends from South Carolina to Florida. Trucking has since the war become a source of wealth to our Southern people. It is in the aggregate already, more valuable than their staple crop—cotton. Once cotton was king, now the sceptre has passed to the culinary vegetable and fruit department. It may be said to be a divided crown between the two last. Both bring the "Almighty Dollar," which is after all, the genius that rules the land. Hence our people should go on to increase their stores in these lines and not fear an over-charged market. Vegetables and fruits, well grown and sent to market in proper condition, can never fail to meet remunerative prices, no matter in how great profusion they may come. There will always be buyers at fair prices found, outside and antagonistic to those immense customers—the canners and dryers—who are packing always

industriously to their utmost ability, to supply foreign demand and the home market, when such materials are out of season. Let us then advise all our readers to go ahead and raise all the vegetables and fruits they can, undeterred by the threats of interested parties that the markets will be overstocked. As long as our non-producing classes can at reasonable prices eat summer vegetables and fruits, in winter time, just so long will the growing of these by our county denizens be both pleasant and profitable.

Why an Outing was Postponed.

In "The Art of Angling," by Charles Bowlker, published in London in 1830, appears the following quaint lines, which may be old to some readers, but will doubtless prove new to many more.

SIGNS OF RAIN.

[Forty reasons for not accepting the invitation of a friend to make an excursion with him.]

BY THE LATE DR. JENNER.

1. The hollow winds begin to blow,
2. The clouds look black, the grass is low;
3. The soot falls down, the spaniels sleep,
4. And spiders from their cobwebs peep.
5. Last night the sun went pale to bed,
6. The moon in halloes hid her head;
7. The boding shepherd heaves a sigh,
8. For see, a rainbow spans the sky.
9. The walls are damp, the ditches smell,
10. Closed is the pink eyed pimpernel.
11. Hark, how the chairs and tables crack,
12. Old Betty's joints are on the rack;
13. Loud quack the ducks, the peacocks cry;
14. The distant hills are seeming nigh.
15. How restless are the snorting swine,
16. How busy flies disturb the kine;
17. Low o'er the grass the swallows wings;
18. The cricket, too, how sharp he sings;
19. Puss on the hearth with velvet paws,
20. Sits weeping o'er her whiskered jaws.
21. Through the clear stream the fishes rise,
22. And nimbly catch th'unconscious flies.
23. The glow-worms numerous and bright,
24. Illumed the dewy dell last night.
25. At dusk, the squalid toad was seen,
26. Hopping and crawling o'er the green.
27. The whirling wind the dust obeys,
28. And in the rapid eddy plays:
29. The frog has changed his yellow vest,
30. And in a russet coat is dressed.
31. Though June, the air is cold,
32. The mellow blackbird's voice is shrill.
33. My dog, so altered in his taste,
34. Quits mutton bones, on grass to feast;
35. And see yon' rooks, how odd their flight—
36. They imitate the gliding kite,
37. And seem precipitate to fall,
38. As if they felt the piercing ball.
39. 'Twill surely rain, I see, with sorrow,
40. Our jaunt must be put off to-morrow.

The American Angler.

Meeting of the Connecticut Board of Agriculture.

We take the following interesting statements from the "*Rural Special Report*," of some of the remarks made on the occasion by eminent men who participated in the proceedings:

On the morning of the second day, Dr. Bowen, on "The Health of the Farmer and his Family," urged the use of trees for shade. They are cool and cozy, but they should not bar the sunshine from our dwellings, or be so near as to render the air damp or moist. Typhoid fever, in nine cases out of ten, could be traced to privies, barn yards, hen-yards or cess-pools. Purity about our dwellings was as necessary as morality. Our cellars were too often dark and damp. He advocated building them separate from the house, to avoid the baneful effects arising from them. The bed-room, the most important in the house, should be light and airy. He deprecated the use of furnaces as none was yet so perfect as to give a healthy atmosphere. An upper room warmed by a register was false economy. Over-work of farmers' wives was a prolific source of ill-health, and the better health of country children over those of the city was largely due to out-door life. The growth of plants in our dwellings was not, as a rule, detrimental to health. Prof. Brewer discoursed on "Educational Influence of the Farm," and concluded that the hope of the nation and the future of our country lay in the future youth of the farm and their education. The influences surrounding the youth of country and city were contrasted, and street education lamented.

On the morning of the third day Mr. Cheever took "Various Views of Farming," and was not disposed to regard farming as low an occupation as it was sometimes thought to be. Skinning and skimming the soil is not farming, and it is no wonder that those who practice it go West. Many of the sad features of farming are due to those not adapted to the business. The shiftless farmer does not plant much, so as not to have much to care for. He does not plant fruit trees, because it takes them too long to come into bearing. He does not plant any small fruits, as he has

no time to care for them. He keeps no carriages, as he does not care to ride in one; and as for berries, his family can find all they want in the woods—he likes stronger food. The book-farmer is generally a merchant who, having made his money elsewhere, goes on the farm to spend it. The fancy farmer has made many mistakes, but they have been at his own expense; while the practical parts of his operations have been of benefit to practical farmers. It is to this class we are largely indebted for the farmers' club, the agricultural college, the experiment station, improved stock, implements and methods. Scientific farming is regarded with distrust by many; but there is nothing in science that any practical farmer need be afraid of. Scientific farming is only another name for intelligent farming. Special farming was illustrated in the case of a man who planted more corn in order to grow more hogs, to get more money, to buy more land, to grow more hogs, to get more money, to buy more land, etc., *ad libitum*. It was a mistake to spread our labor and manure over too much land; better work what we do till up to its fullest capacity. A case in point: The capital, labor and manure usually spread over a 50 acre farm had been concentrated on 25 acres, and in four years this had been made to support four times as much stock as the whole did previously, while the other 25 acres had been allowed to grow up to wood. Soiling had proved a potent factor in this result, two and three crops being grown in a season, such as rye, barley and Hungarian Grass.

T. S. Gold's soiling crops were corn, Hungarian or millet; on good soil three tons per acre could be grown as easily as hay. Mr. Chamberlain thinks Hungarian better than good hay or millet. He had grown nearly four tons of dried Hungarian grass to the acre, and got two crops a year. Three quarters of a bushel or 36 pounds of seed per acre were required. Bone dust and muriate of potash were commended as fertilizers in proportion of one-half to one-third of the latter, and six to eight cwt. per acre should be applied. Prof. Clark, of Mass. Agricultural College, stated that two cwt. of bone and one cwt. of muriate of potash and five cwt. sulphate of magnesia, applied to a 12-acre peach orchard, gave superior-colored peaches,

which, though not so large as some, sold better on account of their attractive appearance.

The Value of the Roller.

Editors "MARYLAND FARMER:"

Will you please inform me through your valuable periodical, why there are so few farm rollers used? I infer it must be from the fact that those who do not use them, are not aware of the serious loss incurred from planting crops of any kind, on poorly prepared land, and those who use fertilizers, thinking the fertilizers will make up all deficiencies, in both cultivation and fertility. If such are their views, they are laboring under a very grievous error, for it does not admit of a shadow of doubt about the necessity of thorough preparation of land before planting if the full strength of the soil is to be realized, it is only the finely pulverized soil that can feed the growing crop, or that can give the best result where fertilizers are used. I have found long since, that the roller was an indispensable implement in the preparation of land, (if the best results were to be obtained) in the culture of wheat and grass. By its use I have realized as much as 8 bushels of wheat per acre, in excess of my neighbor, who would not roll after seeding. Where land and cultivation was the same in every other particular. The effect produced in my present neighborhood, where there was not a single roller in use, (that I am aware of) when I moved into it, has been very remarkable. I am sure there were but few crops of wheat seeded last fall where the roller was not used, and I will say right here if any farmer is sceptical about the advantage of rolling his land immediately after seeding, let him roll ever so small a space and note results.

If the rolled land does not show a more prompt germination of seed, and a quicker and more vigorous growth of plant, than the unrolled, the result will be different from any I have ever experienced. In addition to the advantage of giving this early start to the growing crop in the fall, I have found the wheat to stand the winter without being thrown out of the ground, and to grow off promptly in the Spring. The rolling causes the roots to extend deep into the seed bed, instead of growing upon the

surface, which is the case where the land is left unrolled, the loose porous surface soil drawn up by the tine of the drill, being more congenial to the delicate young rootlets than the more compact soil below. If the farmer's objection to the roller is its cost in addition to the many indispensable implements he has to purchase, I think we can meet him on such grounds as to do away with that objection. As a practical farmer myself, and being desirous to facilitate my brother farmers in every way possible, and knowing that economy is what we all have to practice, I have taken the liberty of writing an article in which I refer to the only complete, and at the same time most economical, combined implement (roller included) ever placed upon the market.

T. R. CRANE.

[The article above referred to by our esteemed correspondent, will be found in this Number. Of the Roller as an indispensable farm implement, we have often expressed our views and urged upon our farmers its incalculable importance as a farm implement, without which no first-class farming can be carried on successfully either upon stiff soils or very sandy ground.—EDS. MD. FAR.]

STRAW.—The value of straw is greater than most people realize. A ton of straw, for feeding purposes, is worth two-thirds as much as a ton of hay. Three tons of straw are equal to two tons of hay. Very few farmers would place a value as high as this upon it, because it is generally fed so slovenly. Feed straw from mangers, and its value, as compared with hay, becomes more apparent—*Farmers Advocate*.

TO DESTROY WIRE-WORMS.—I have more than once freed fields entirely from wire-worms by sowing a crop of white mustard seed. I once sowed a whole field of forty odd acres, which had not repaid me for many years in consequence of every crop being destroyed by this wire worm, to white mustard. I am warranted in saying that not a single wire-worm could be found the following year, and the succeeding crop of wheat was a fine one.—*English Farmer*.

CORN AND COB MEAL.—Grinding corn and cob together is becoming more popular than it once was. There is, undoubtedly, some nutritive value in cobs, as is shown by the true story of the poor widow who wintered her cow mainly on cobs. The corn meal alone is too rich and concentrated food, and if something should be put with the meal as a divisor, why not the cob on which the corn originally grew? Oats or barley ground with corn in the ear will enable the miller to pulverize the cob much more finely, and besides largely adds to the value of the meal.—*Exchange*.

[The "Young America Corn and Cob Mill," is the best and cheapest, all things considered, we have ever seen for grinding fine or coarse, the corn and cob together. It is valuable as a machine for grinding the cob alone, which Mr. Beall, of Prince George's Co. Md. has used with great effect as a fertilizer for tobacco and corn. Heretofore the corn-cob has been considered only fit for fire kindling, but lately is considered nearly equal to meal as a fertilizer for grain crops.—EDS. MD. FAR.]

WHAT the "Frederick Examiner" says of:

THE MARYLAND FARMER.—We have received this old and highly appreciated Agricultural Journal for January, 1884. It is beautifully printed on tinted paper and treats on Agriculture, Live Stock and Rural Economy. Now is a good time to subscribe, the beginning of the New Year. Published by Ezra Whitman, Baltimore, Md., at the low price of \$1 per annum in advance.

Consumption Cured.

An old physician retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung affections, also a positive and radical cure for nervous debility and all nervous complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper. W. A. NOYES, 149 Power's Block, Rochester, N. Y.—*

POULTRY HOUSE.

Geese.

Americans are not such goose eaters as the people of Europe. The turkey has in a measure supplanted the goose on all great holidays and festivities. The goose, however, is still highly prized by many, and when happy Christmas and New Year come around it is found upon the family board, and some prefer it to turkey for "auld lang syne" memory.

Considering the extent of our Country, the rivers and streams which flow through our lands, the pasture range everywhere, and the locations contiguous to good city markets, it is somewhat strange that so few geese are raised on farms compared with the large number of barn-yard fowls. No class of poultry will give the breeder more profit on the investment than geese, where the facilities are at hand and the location for their propagation good. Geese will take better care of themselves upon an old pasture range where a stream or pond runs through, keep in better condition upon grass, on the floating garbage by the lands, in the muddy pools and by the shores than will any other species of domestic poultry. —*Poultry Monthly.*

For the Maryland Farmer.

Plymouth Rock Fowls.

The Plymouth Rock being of American origin, are by nature peculiarly adapted to our climate; more so than any of the Asiatic breeds, for it is well known that the latter belong to a warmer climate than ours. They are descended upon the one side from the old and well known American Dominiques so popular years ago, and still so in many sections. The breed originated from a cross many years ago, between a Dominique cock and a large black hen of some Asiatic breed. This cross has been modified by other judicious crossings until a distinct breed with hawk colored plumage is the result. If well bred but little deviation of marking will appear in a large flock of those fowls. The cocks nearly always have lighter plumage than the hens, the tendency being to feather up too light to suit most fanciers. The hens go to the other extreme of rather dark plumage but judicious crossing of light cocks with dark

hens, is said to bring about the happy medium. As a farmer's fowl they are unequalled in my judgment. Combining the following good qualities: hardness of constitution, quick growth, quick feathering, good size, excellent table qualities, quietness, ability to shift for themselves being great foragers yet not destructive like most breeds. Owing to the shape of their wings, are not high flyers over neighbors fences, &c., are good layers of large, rich flavored eggs, good sitters and mothers and altogether combine so many good qualities as to make them one of the most popular breeds for general utility in this country. A mistake common to most breeders of Plymouth Rocks, is to breed for great size and weight. The cocks have been made to weigh as high as twelve and hens ten pounds. This, I consider too heavy; other good qualities are in my opinion sacrificed to bring this result about. Eight pounds for hens and ten pounds for cocks one year old is heavy enough to meet the requirements of a good market fowl. A cross between a Plymouth Rock cock and common barn-yard fowls, makes a marked improvement in the flock; adding many pounds avoirdupois to the coops annually sent to the markets. There is but one fault I find with the Plymouth Rocks, it being their nature to take on too much fat in the fall when eggs are scarce and high. A fat hen as every one knows does not shell out the number of eggs that a less favored one does. While it is just the thing when we wish to prepare them for market, it is some trouble to prevent the layers of the flock from getting an overabundance of too rich and fat producing food. Perhaps a proper management in feeding during the fall and winter would help the egg basket and remove the difficulty.

Yours respectfully, A.

The Wonders of Incubation.

The hen has scarcely set on her eggs twelve hours before some lineaments of the head and body of the chicken appear, the heart may be seen to beat on the second day; it has at that time somewhat the form of a horse shoe, but no blood yet appears. At the end of two days, two blood vessels are to be distinguished, the pulsation of which are visible, one of these is the left vertical, and the other the root of the great artery.

At the fiftieth hour, one auricle of the heart appears, resembling somewhat a noose, folded down upon itself. At the end of seventy hours, the wings are distinguishable, and on the head two bubbles are seen, one for the brain and the other for the bill, and two for the fore and hind part of the head. Towards the end of the fourth day the auricles draw nearer toward the heart; the liver appears toward the fifth day. At the end of seven hours more the lungs and stomach become visible, and four hours afterwards the intestine and loins and upper jaw appear. At the end of one hundred and forty-four hours two ventricles are visible, and two drops of blood appear, the seventh day the brain begins to have some consistency; at the one hundred and ninety-fourth hour of incubation, the bill opens and the flesh appears on the breast, in four hours more, the breast bone is seen; in six hours afterwards the ribs appear, forming from the back, the bill is very distinct now and the gall bladder is formed.

The bill becomes green at the end of two hundred and thirty-six hours, and if the chicken be taken out of his covering, it evidently moves. At the two hundredth hour the eyes appear; at the two hundredth and eighty-eighth hour the ribs are perfect; at the three hundred and thirty-first hour the spleen draws near the stomach, and the lungs to the chest; at the end of three hundred and fifty-five hours the bill frequently opens and shuts, and at the end of the eighteenth day the first cry of the chick is heard. It afterward gets more strength and grows continually 'till at length it is enabled to set itself free from its confinement.

Duck Breeding

We find in the "Western Rural," the following, from D. Z. Evans, Jr., and call attention to it, of our poultry raisers:

"Consumers of poultry in our large cities are beginning to appreciate the merits of duck, and the demand is much better now than ever before. While nearly every farmer breeds chickens, and perhaps turkeys and geese, comparatively few seem to realize that there is a large profit to be made from breeding ducks, where facilities are at hand for prosecuting the business successfully. A small stream is much better than a large one or near-by river, as it affords

the ducks all the water privileges they need without any of the dangers, which lurk unforeseen on the margins of large streams and rivers, in the shape of snakes, turtles, rats (musk), etc., to say nothing of the temptation offered to the ducks, by the larger streams, to stray away. Some of the finest and largest flocks of ducks we ever saw, were raised on streams only a foot or two wide, these streams being banked up into small "dams" and fenced in during the breeding season.

A trio of good, early hatched young ducks will produce quite a large flock of ducklings, if properly handled, from fifty upward being nothing uncommon. Early in the season the ducks will lay well, and as fast as enough eggs are secured to make a "clutch," they should be set under a common hen. When the ducks become broody pen them up with the drake (it should be a young and vigorous one), and they will soon get over the desire to set and go to laying again, when the same disposition can be made of the eggs, though the ducks should be allowed to bring a setting out at the end of the season. By this means a very large lot of ducklings can be raised each season from a single trio. To make sure of all the eggs, the ducks should be penned up at night and not permitted to go out of the enclosure in the morning until they have dropped their eggs, which they will usually do about nine or ten o'clock in the morning. The young ducklings should not be permitted to have any water, except for drinking purposes, until they are four or five weeks old, when they will be strong and better able to take care of themselves, if properly handled, and liberally fed from the start.

In regard to variety, tastes differ, some even preferring the common duck to the pure-bred one. It is just as easy to rear pure bred ducks as common ones, and if there is any local or other demand for them, they are always on hand to fill the orders therewith, and at satisfactory prices. The Rouens are excellent, as are also the Aylesburys (our choice); and either kind should give good satisfaction under proper management. The Pekins have made considerable stir amongst fanciers and breeders, but this has subsided, and we fail to see that they are superior, for general and profitable purpose, to the other breeds mentioned."

For the Maryland Farmer.

Care of Fowls.

I will state as bearing upon the subject that there is scarcely any pursuit in life in which we engage upon which there is such a diversity of opinion as regards the mode of treatment or best variety of fowls for profit. As in everything else there are certain general principles to be observed, a departure from which will inevitably lead to discouragement and possible failure; yet, I find after a long experience and careful observation in a number of instances a marked divergence upon that law of nature claiming that "like produces like" So that in every brood of fowls reared with the greatest care, under the same regulations with regard to locality, manner of treatment, etc., I find in each and all often more than one chick answering to the proverbial black sheep of the human fold. I am led to this statement from the fact that having spent some time and money in procuring both fowls and eggs from the most reliable dealers, all except the light Brahmas have fallen below the merit claimed for them. Various methods have also been devised in order to insure success in this department, but these must also be adapted to soil, climate and favorable surroundings. Like all other pursuits, any one who expects to succeed in the rearing of poultry, must have a talent for, or adaptation to the work in which they must find pleasure as well as interest or profit. Constant vigilance alone, under the most favorable circumstances will insure success, as one slight omission of duty will sometimes cost a month's labor.

Having never been limited as regards space, my fowls range over as many acres as they like. The indolent ones not caring to range at all, and are soon disposed of. Not having tested the merits of the incubator, preferring rather to follow nature in the matter, I find something new and novel every year in this pursuit. To economise time and labor I place my boxes of hens with their broods in rows alongside of each other. If the weather is favorable I begin to set hens about the middle or last of February. The Plymouth Rock, or any other fowl that feathers early, are the best for early hatching. The Brahmas cannot stand the cold March winds but will do a month later. For the first few weeks I

feed scalded corn meal, with an occasional sprinkling of black pepper to prevent the chicks being chilled. If there is snow, I feed hot food every day, and I never at any season feed raw meal. Pure water is also given as needed, and sweet or sour milk without stint, the latter always warmed. In a few weeks I vary the feed with scalded bran, wheat screenings, soaked bread crusts, and other table scraps of meat and vegetables. A few weeks later I feed cracked corn prepared especially for them, somewhat finer than hominy, not omitting the milk as it tends to fatten. From six to eight weeks old they are large enough for broilers. Then I select, by well defined marks, those for the next year. I ship but once a year and find it remunerative. The corn crop being short we have raised buckwheat and sunflowers for their feed. The seed of the latter will be fed during the winter. It is considered nutritious and an egg-producing food. The American Seabright is a failure. I make a note of especial favorites and distinguishing traits in each in contrast with others under the same treatment. In a family of seventy or more most of them have names suggestive of disposition, or some peculiar mark or difference of color. One named Fluffy had its leg broken when six weeks old. It was a pullet I had selected for the year. I splintered and bound up the limb, and as a reward for my pains, I have many more of the same family running around and enriching the larder. M. A. G.

Shenandoah County, Va.

Guinea-Fowl.

This bird, according to Mr. Wright, called also *Gallina* and *Pintado*, mates in pairs, and an equal number of males and females must therefore be provided to prevent disappointment. There appear to be ten or twelve wild varieties, but only one has been domesticated in this country. To commence breeding Guinea-fowls, it is needful to procure some eggs and set them under a common hen; for if old birds be purchased they will wander off for miles as soon as they are set at liberty, and never return; indeed, no fowl gives so much trouble from its wandering habits. If hatched in the poultry yard, however, and regularly fed, they will remain; but must always have one meal regularly at night, or

they will scarcely ever roost at home. Nothing, however, will persuade them to sleep in the fowl house, and they usually roost in the lower branches of a tree.

The hen lays pretty freely from May or June, to about August. She is a very shy bird, and if eggs are taken from her nest, with her knowledge, will forsake it altogether, and seek another, which she conceals with the most sedulous care. A few should therefore always be left, and the nest never be visited when she is in sight. It is best to give the earliest eggs to a common hen, as the Guinea-fowl herself frequently sits too late to rear a brood. If "broody" in due season, however, she rarely fails to hatch nearly all. Incubation is from twenty-six to twenty-nine or thirty days.

The chicks require food almost immediately—within, at most, six hours after hatching—and should be fed and cared for in the same manner as young turkeys, though they may be allowed rather more liberty. It should be observed, however, that they require more *constant* feeding than any other chickens, a few hours abstinence being fatal to them; and they also need rather more animal food to rear them successfully and keep them in good condition, especially in the Winter. The chicks are very strong on their legs, and in fine weather may be allowed to wander with the hen when very young. The flesh of the Guinea-fowl is of exquisite flavor, much like that of the pheasant. The body about equals in size an ordinary Dorking; and is very plump and well proportioned. Like all other finely flavored birds, they should never be over fed or crammed, as is sometimes done. Who would think of cramming a pheasant to make it more "fit for the table?"—*Western Rural*.

Eggs in Winter.

A correspondent of the *Irish Farm* gives it as his experience that it is useless to expect hens to lay during the winter, unless some considerable pains are taken for their comfort. The first thing that is necessary is shelter; this must be provided, and should be constructed so as to afford warmth and yet plenty of ventilation. If it can face the south, so much the better, as it gives the poultry a chance to sun themselves without undue exposure. Then they must be watered and fed regularly. Give fresh water twice a day at least; not cold,

frozen water, but moderately warm, so that they can drink all they need without endangering their health. Then they must be fed regularly. My rule of feeding is to give whole corn just before they go to roost at night. This gives them a full stomach or gizzard, to supply warmth, and some to grind during the night. In the morning either wheat screenings, oats, or sorghum seed. For eggs alone, nothing can equal wheat; at least this is my experience. Twice a week I give a small handful of sunflower seed, as I consider it a very healthy food. Then a feed of chopped onions and red pepper, mixed with either cornmeal or coarse flour, cooked and fed warm, helps the production of eggs. With this treatment and with convenient nests, I find but little trouble in securing a liberal supply of eggs during the Winter, at a time when they bring the highest price, and therefore, find my poultry as profitable as any stock on my farm, in proportion to value and cost of feed.

Small Families.

Fowls should be kept in small flocks, that is 20 to 25 hens, occupying a room together will be more profitable than a larger number. If one wishes to keep 100 fowls, it is better to have that number in four separate apartments, than to have them occupy but two. Great care should be exercised to keep the rooms in winter and the roosting places in summer, free from deleterious smells and gases, by removing the droppings often and with the use of absorbents. This must be attended to thoroughly, and often in warm weather. Take pains to save all the manure thus collected for use on crops.

In summer build houses so as to separate the fowls as much as possible. These rules of cleanliness must be observed to keep the fowls healthy. A great source of trouble is vermin in the houses and on the hens. Whitewash the room often, and use kerosene oil freely upon the roosts to kill vermin.

Feeding and Breeding.

Some care is necessary in feeding fowls. More is required to breed judiciously. Bear in mind that all the egg producing varieties of fowls have been produced by careful breeding. Care is required in breeding to prevent retrograding and returning

to old characteristics. When this occurs it is the result of injudicious mating and breeding. It should be the study of the breeder of pure poultry to increase the qualities. Setting hens should have food and water where they can eat it readily on leaving the nest. Look carefully after the eggs. The tenth day test them and remove all sterile ones. These make the very best food for the young chicks. After the eggs have been set on ten days, by holding them to the light, and looking through them, those which are fertile will be much darker than those which are sterile.

It is well to set two, three or more hens at a time, so if a considerable number of eggs prove poor, the fertile ones can be placed under one or two hens, and the others be given a new set.

Beginning Poultry-Keeping.

Begin with small flocks, and gradually work up to the larger numbers. No danger of overdoing the business. No chance for over production. No need of failure in keeping poultry if business principles are observed.

In winter hens need animal food. Sheep heads procured at slaughter houses are good. Preferred to cook them and feed two or three times a week. Cracked bones are also good, and should always be fed to fowls in confinement.—*Lewiston Journal.*

Journalistic.

FARMER'S FRIEND AND GRANGE ADVOCATE, Mechanicsburg, Pa. R. H. Thomas, Editor, has been much enlarged and improved in appearance and matter. It thus commences the New Year under flattering auspices.

THE CATERER AND HOUSE-HOLD MAGAZINE, is an elegantly printed monthly, conducted by J. W. Parkinson, published by E. C. Whitton, 1013 Chestnut st., Philadelphia, Pa.; \$2 per year. It should be subscribed for by every gourmand, free-liver and person desirous to know how to set an elegant table, and serve up appetizing, rare and superb dishes, at the same time to know how to cook, and how should be cooked, and served, the best dishes, economically and in the best taste. It is really a monthly, which supplies a great want, and will be of much service to young house-keepers, who desire to lead or follow, in getting up nice dinners.

THE SUNDAY NEWS, of Baltimore, for the 13th ultimo, was an admirable paper, full of very useful and entertaining matter, and had an editorial appropriate to the inclement season, which deserves more than a passing notice. It was eloquent, terse and heart searching, which if read, must have quickened the pulse and reddened the cheeks of those, who are blessed with an abundance of this world's goods, give grand entertainments, make great show, and blazon forth a \$50 gift, to a charity object, at the moment they spend \$5,000 on an entertainment, to people who laugh in their sleeves at the repetition of the old saw—"fools give feasts and wise men eat them." This is no slur on genuine hospitality. The latter is in perfect accord with christian charity, and agrees well with the sentimental peroration of the article alluded to.

"More good can be done by benevolence now than at any other time; and the various relief associations should be supplied, and the more pressing and obvious needs of the unemployed, the sick and the indigent reached by the shortest route,—through the station houses. The most moderate winter is hard on the poor and destitute, and one like this is peculiarly painful. Let the cry of affliction and distress be heard now, and the hungry be fed, the freezing warmed, the naked clothed, and the exposed sheltered in the name of humanity, if not religion."

AGRICULTURAL REVIEW AND INDUSTRIAL MONTHLY.—The initial number of this elegant monthly lies on our table. As mentioned before, in our columns, it is a consolidation of De Bow's Review; Agricultural Review, and Southern Industries. The ability of its four editors, guarantees its future success. The present number is all that could be expected of it. In agriculture it holds the position to other journals in that interest, that a first class Review holds to the literature of our dailies and weeklies. The price is \$3.00 per year. We hope it will be very largely patronized by all interested in our advanced and progressive agriculture.

THE ATTENTION of our readers has doubtless been attracted to the voluminous card of Messrs. W. Altee Burpee & Co., seed growers, of Philadelphia, Pa., which appears in our pages this issue. The usual enterprise of the firm, is manifested this season by the offer of cash prizes, on a competitive basis, open to all who may choose to enter. Read their advertisement. The honorable record maintained by this firm, entitles them to the attention of all who may be interested in farm and garden products.

THE DAIRY.

Roots for Dairy Cows.

Various roots are excellent as part of the ration for milk; in fact, all roots are good for the health of the cow, and for quantity of milk; but turnips give an unpleasant flavor to the milk and butter. The sugar beet and the carrot give good flavor to the milk, and are the best adapted to milch cows. The mangold is also raised for dairy cows, but is not of as good flavor as the sugar beet or the carrot. The mangold produces the largest crop per acre, and will answer a very good purpose, when moderately fed to dairy cows. When dry, they are very conducive to health. Some even feed turnips to cows in milk, and say they can avoid the turnip flavor by feeding them just after milking. Others dispute this, and say the turnip will always communicate more or less disagreeable flavor to milk. But the sugar beet is in high favor as a food for milk. Mr. Harris Lewis, a well-known dairyman, of Herkimer County, N. Y., has reported that he can raise sugar beets for six cents per bushel. This is cheap enough, and at that price dairymen can well afford to lay in a bountiful supply. But it must be remembered that roots are not nitrogenous enough to be fed alone for milk. Not more than one-half bushel should be given to a cow per day, and the balance of the food must be richer in albumenoids, as milk is a very nitrogenous product. Clover hay makes a good ration for milk in addition to sugar beets or carrots.—*National Live-Stock Journal, Chi.*

Patapsco Dairy Association.

The Patapsco Dairy Association met at Sykesville, on Friday. Nearly every dairy man on the line of the B. & O. R. R. was present. Capt. W. F. Gorsuch presided. Messrs. J. Frank Shipley, J. D. Warfield, and A. J. Dougherty, committee on constitution and by-laws, for the government of a permanent dairy association, submitted the same, which were adopted with some little alteration. The name of the Association was not changed. Four meetings will be held annually, on the third Tuesday of March, June, September and December. The following officers were elected for the ensuing year: President, Capt. W. P. Gorsuch; Vice-Presidents,

Thos. Mottu and J. D. Warfield; Secretary, Charles R. Favour; Executive committee, J. D. Warfield, J. Frank Shipley, N. B. Dorsey, John E. Gaither, J. Flohr and William T. Polk.

Winter Dairying.

For East Tennessee, and for the South generally, we would by all means, advise winter in preference to summer dairying. The long and dry summers of the South are unfavorable for summer dairying. The grass in midsummer ceases to grow, and withers and dries up, the streams and springs fail, the heat of the sun is oppressive, and flies are troublesome. If cows are ever to go dry, this is the time for them to do so. In the mild Southern winters all this is reversed. By beginning at the close of summer, the fall, winter and spring afford a good, and continuous milking season. Grazing runs late into the winter, and begins early in the spring. The season for foddering is so short, that if cows are provided with green cut fodder, preserved either by desiccation or in silos, the winter makes no diminution in the flow of milk especially if helped along with roots. In this part of the year, water is most abundant, heat ceases to oppress, and flies are out of the way, and the cows are accorded a season of comfort, so necessary to profitable location. The cold winter with comfortable quarters and green cut food interferes less with the milk secretion than a long dry, and hot summer. In the winter too, milk and all it produces are more valuable than in summer. In the North where the winters are long and severe, and the summers comparatively short, dairying in winter is more profitable than in the summer. The preponderance of summer creameries is not from greater profit, but solely from the force of habit. If Tennessee and the South generally will break away from time-worn habits, and change the season of active operations 'round into the cooler instead of the hotter part of the year, there is no good reason why dairying may not be profitably carried far into the warmer climate, to enhance the welfare of individual farmers, and to augment the resources of the South, by the introduction of a new and large, and profitable industry.—*National Live-Stock Journal, Chicago.*

For the Maryland Farmer.

Ensilage and Silos.

For some years past the subject of silos and ensilage has been under discussion, and occupied an important position in the many agricultural papers of the country. Ensilage has had many warm friends and advocates, and can boast of the same today. But notwithstanding the earnest advocacy of its most devoted friends, a large proportion of farmers who are more conservative in their views, have refused to adopt the new system of preserving food for animals. The arguments in behalf of this radical departure from general usage, have been earnest but not fully convincing. The reason may be, because of the unwillingness of the masses to believe, for it is an old saying that it is an easy matter for a person to believe anything which they had rather believe than not, and by parity of reasoning, it might be expected that persons who were anxious to secure certain results would be strangely prejudiced in favor of such results, and believe that they actually existed even if there was room for doubt in the mind of one that was wholly disinterested. At the recent meeting of the Farmers Convention in this State, by way of inquiry, a spirited discussion arose on the subject of ensilage, occasioned by the fact of the exhibition of same, which, from the stench that it sent forth, had to be removed from the hall.

The opponents were quite numerous and during the course of the discussion. Hon. James A. Bill, President of the State Agricultural Society, and also a member of the Board of Agriculture, remarked that the discussion was one of the most valuable that had ever been had, for the reason that it would save the farmers of the State thousands of dollars, by discouraging them from engaging in a fruitless enterprise. New England farmers have had one experience, which occurred within the memory of some of the older ones, in the case of the *Morus Multicaulus* craze into which many farmers were drawn by the flattering prospects of great gain. It would seem as though something must be presented once in about so many years to divert the attention of farmers. It was only a few years ago that steamed food was the great cry, and some of those of better means, immediately procured engines for steaming pur-

poses and power to prepare the food, while the less fortunate were content with Prindle's Steamers for the purpose of cooking the food. But how many farmers can be found in the entire country that now cook the food for their animals? Very few, if any.

This being the case, some other system must be adopted, and so, instead of cooking, it must now be rotted, for the ensilage system is little if any better than that.

Now before any farmer should engage in any radical change, he should consider carefully all the advantages, but at the same time he should not forget to consider any disadvantages that are likely to follow, from the newly adopted course. With this view of the case, suppose that a search is made for the advantages that come from the use of ensilage; and first, does the system add anything to the feeding value of the material, whatever it may be that is ensilaged? The answer comes, emphatically, no! Every element of nutrition that is contained in the material, is retained, possessing its entire value when cured by the usual processes, and the silo could not possibly do more than that, because it can add no nutriment to the material furnished. Then the question occurs, does the fermentation which takes place, detract from the nutritive value? The evidence of scientists, which must be taken, says that it does, because some of the elements by the process of fermentation, which could be nutritive, are so changed as to possess no nutrition. But then recurs the strong argument of the advocates of the system, that by practice, animals will thrive fully as well or better, upon ensilage than upon the same feed, cured by the old methods. Upon this point however, there is a disagreement among those, who have adopted ensilage. It will be noticed that in most cases of feeding with ensilage, in addition to the usual feed, the animal has been fed with so many quarts of meal, or wheat shorts, a course, which average farmers do not practice when feeding good hay or corn stover, and, which would have a very powerful influence in assisting to maintain an animal in good condition. But the limits of this article forbids the further consideration of the subject, which must be reserved for the future.

WILLIAM H. YEOMANS.

Columbia, Conn.

Composition of Manure.

The value of manure depends not only upon the character of the feed allowed, but also upon the condition of the animal, the breed and the age. The principal substances of value in manure are nitrogen, phosphoric acid and potash, the former substance being the most costly. In the artificial fertilizers, nitrogen exists in the shape of sulphate of ammonia, nitrate of soda, or as Peruvian guano, while ground dried blood, leather and other substances containing it, are sometimes used. Potash is usually supplied in the form of the sulphate (kainit) or muriate, its quality depending upon the grade of the salts used for the purpose, while the phosphoric acid (usually combined with lime,) is derived from bones and sometimes from guano deposits and marine formations. The Carolina phosphate beds have been largely instrumental in cheapening this article, while that from bones, is usually associated with proportions of nitrogen.

Barn-yard manure and artificial fertilizers differ only in form. The active ingredients of barn-yard manure are the same as those in fertilizers, excepting that the manure contains small portions of magnesia, soda, and few other substances not always present in fertilizers, though easily added to them if necessary. Manure contains, however, a large quantity of carbon, which is considered by some, a valuable fertilizer, but others contend that as plants appropriate carbon, from the atmosphere through agency of the leaves, such matter only adds to the bulk of the manure without increasing the quality. When food is fed to animals, it undergoes a chemical process in the body, which extracts the nutritive portions for sustenance, according to the digestive capacity of the animal, the residuum being voided as being no longer useful in that respect. The amount of available fertilizing material in the manure thus voided, depends upon the character of the food, and its relative proportions of nitrogen, which is always costly. As growing animals require not only food for warmth, but for growth also, the manure from such is less in value than from animals that are matured. And as more food is required to assist the body against cold in winter, than for any other purpose, the warmth of the quarters is a factor in the matter also, es-

pecially if it be correct that carbon is beneficial as a manure to the roots of plants.

Assuming that animals are well fed an average quality of food, then, for every 1,000 pounds of manure from horses, more than 700 pounds consist of water, while the remainder is estimated at about twelve pounds of phosphoric acid, twenty-eight pounds of potash and five pounds of ammonia. The manure from the cow contains nearly 860 pounds of water in every 1,000 the amount of phosphoric acid in the remainder being about five pounds, potash ten pounds, and nitrogen three pounds, the manure from the horse being double the value of that from the cow, in all the substances except nitrogen, and even in nitrogen, the horse manure is nearly twice as rich. Of the different kinds of manure, that from fowls and the human species is the richest in nitrogen, but this includes the urine, the solid portions being very deficient in that respect. Manure from the sheep is the richest in phosphoric acid. Urine is always rich in ammonia (nitrogen), with proportions of potash, and small quantities of phosphoric acid. Considering this fact, too much importance cannot be given to the saving of liquids. That from the human species being valued at $\frac{1}{2}$ cent per pound. The value of the solid portions of manure from a horse for one year, is said to be about \$10, while the value of the liquids from the same source, for the same period, is nearly the same.

Considering the high value of the liquids, which are always immediately available as plant food when applied to the soil. The manure must be protected from drenching rains and melting snows, for as part of the inert matter of the manure is changed by chemical action, in the heap during process of decomposition into soluble matter, it is always lost unless protected.—*Philadelphia Record*.

The "Maryland Farmer," Baltimore, Md., comes to us, each month, well filled with choice rural literature. It is, we believe, the oldest paper of its kind in the United States, tho' its age does not impair its vigor in the least.—*The Agricultural Epitomist*.

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Our Letter Box.

H. J., of Wicomico County Maryland, asks us, by letter a few days ago, after reading in our October Number, of 1882, Andrew H. Ward's article upon dissolving bones with soda ash, what is soda ash, price of it, &c., and we referred his enquiry to our friend, A. P. Sharp, who has given the following elaborate reply. Our Letter Box this month is extremely valuable and should meet that attention it so richly deserves.

A. P. Sharp in reply to the above enquiry, says:—

In reply to the above, will say that soda ash was formerly prepared from the ashes of marine plants, as potash is prepared from the ashes of land plants and forest trees. The ash is no longer made from ashes, but is made in large quantities directly from salt, the half of which is soda combined with chlorine. A decomposition of the salt through the agency of carbon or charcoal, which furnishes the carbonic acid, displacing the acid of the salt and uniting with the soda forming carbonate of soda, or soda ash, the same result as when the marine plants are burnt.

The price in large quantities is from 3 to 5 cents per pound, and can be obtained from the wholesale druggists. It is an alkali, but of doubtful use as a fertilizer for land plants, in which potash takes the place of soda, although the latter is sometimes found in small quantities in them. This salt will not *dissolve* bone or phosphate of lime, as stated by Mr. Ward. If it was possible to do so, there would be no use for sulphuric acid or vitriol, which is so extensively used for this purpose.

Usually, fresh bones have both oil and gelatine in them, and by being treated with a strong lye either from potash or soda ash, this oil and gelatine are drawn out and the adhesion of the particles of bone being removed, they will crumble and can be used for agricultural purposes, but it would be an expensive and slow way of reducing bone for farming purposes; and then the phosphoric acid would not be in a soluble condition, i. e. soluble in water which the term implies. To make this matter clearer I must state that phosphoric acid is presented to

the farmer in two conditions, namely, ground bone or tribasic phosphate of lime, which is composed as follows, in 156 parts: Phosphorus 32, calcium 60, and oxygen 64 or 72 parts of phosphoric acid and 84 lime. If it was possible for the soda ash to render this salt soluble, it would be done by the carbonic acid of the ash uniting with lime, forming the insoluble carbonate of lime, and the soda passing to the acid, would form phosphate of soda, a very soluble salt, but no such a decomposition would take place, and even if it was possible, it would no longer be bone.

The other form of phosphorus presented to the farmer, is a mono phosphate of lime, composed as follows, in 118 parts: 72 phosphoric acid, 28 lime, and 18 water. This compound is soluble in water, and is obtained as follows: To the powdered bone, let it come from the animal, the S. Carolina deposits, or from the starting point, apatite or mineral bone, the result is the same, a certain amount of oil of vitriol is added, which quickly extracts from the bone, 56 parts of the lime, forming sulphate of lime, and in the place of lime, 18 parts of water steps in and forms what is known as acid phosphate, super phosphate, soluble phosphoric acid, or improperly called, dissolved bone. This acid phosphate mingled with the sulphate of lime or plaster, and is known in commerce as acid or soluble phosphoric acid, or dissolved bone. When this is made from raw bone, the oil and gelatine remains mixed with it and contains a small amount of nitrogen, which is always found in gelatine, and usually costs more than double the price of the same phosphate made from S. C. rock, Navassa or any other good phosphate.

If farmers think ammonia is necessary to a fertilizer, I advise them to purchase it in the form of sulphate of ammonia, and mix with the plain acid phosphate. The reader can be assured that soda ash will not form soluble phosphoric acid, but on the contrary, will instantly convert soluble phosphate of lime into an insoluble phosphate of lime or bone, and in this condition enters the plants. Such a thing as soluble phosphoric acid remaining in the soil, twenty-four hours, no scientific man will dare assert, who is familiar with this peculiar chemical salt, yet it is a valuable and important one to the farmer, as it presents the phosphorus in a most desirable form, for the fine roots

to obtain it by their peculiar action, only known to themselves. We can have a theory of this action, and my own must be deferred to another time, as I fear I have already gone beyond the limits allowed in your valuable columns. A. P. SHARP.
Rock Hall, Kent Co. Md.

Ages of Stock.

Can you tell me of any scientific method of ascertaining the exact age of a heifer or steer under two years, and of ascertaining if a cow is in calf at three to five months? A cow (one in point) having been served, showed no signs of heat for five months, when she was served again; and now, at four months, her condition is uncertain.

VINDEX.

"There is a slight difference in the dentition of animals, which depends on the breed, but for all practical purposes the following observations will guide you to determine the age of heifer or steer:—At birth the calf has four central incisors, which are temporary or non-perennial. In about a fortnight the lateral pair develop, and in a month the corner ones also. At the age of one year and nine months, the central pair of permanent or perennial incisors develop, then the two internal lateral follow at two years and nine months, and the pair of corner ones, at three years and three months. The mouth is now full. The *permanent* incisors are easily distinguished from the *temporary* by their broad crown and sharp edges with deep furrows down their front or anterior surface. It is not an easy matter to detect as early as the third month after the conception, but later, the fifth or sixth, it may be done with comparative ease. Go about it thus: whilst the cow is standing, place yourself on the right side of the cow, and your right hand on the back near the loins; then your left under the flank, near the udder, and press gently upwards, and at intervals, you may feel the calf move and strike as it moves. If the cow drinks a little cold water at the time of examination, it will be more susceptible. Should you not notice, clench your fist and endeavour to raise the abdomen, when the calf will respond. Some breeders throw cold water over the cow, to cause the foetus to rebound, but I never allow this. If you fail as instructed, you may explore the rectum, and feel the foetus. However, by

careful manipulation, or listening over the region indicated, you may, with patience, arrive at a correct diagnosis. The usual visible signs, should guide you as well, with absence of desire."

[The above questions were referred to Dr. Ward, our State Veterinarian, who has been kind enough to give the above answer.—EDS. MD. FAR.]

How one of our Premiums is esteemed by an intelligent subscriber to the MARYLAND FARMER:

"Ammendale, Md., Jan. 16, 1884.

EZRA WHITMAN, ESQ.

My dear sir:—I think it proper to thank you for the very valuable little book you presented me when in Baltimore a few days ago. It has more in it than "The Horse, his Feed, and his Feet." By the analogies he introduces, the author makes it a most valuable book for hygiene and health of man, of his physical development and the preservation of his health. Many of the ideas as to condition had previously established themselves in my mind, but the means of arriving at that condition was not so clear as after reading the book.

Very truly Yours, DAN'L AMMEN.

Dr. W. W. W., of Nottingham, Md., in renewing his subscription, says: "I have greatly enjoyed reading your paper this year and consider some single articles worth TEN TIMES the cost of the whole years subscription. Hope you both may be long spared to continue your good work; and wishing you a prosperous New Year, I remain, Yours, &c.

What the "Ishmaelite," Sparta, Ga. says:

"The "Maryland Farmer is one of the best Agricultural Magazines that comes to this office. If our farming friends would read more, and profit by the experience of others, they would save many hard licks. Some of our best agricultural clippings are from this Magazine. Send one dollar for it and you will not regret it. Address Maryland Farmer, Baltimore, Md.

DEVIL AMONG RATS, attracts rats; Devil among Rats, kill Mice and Roaches; Devil among Rats is easily prepared for use. Devil among rats will cost you 10 cents.

MARYLAND FARMER

A STANDARD MAGAZINE,

DEVOTED TO

Agriculture, Live Stock and Rural Economy.

EZRA WHITMAN, Editor.

COL. W. W. W. BOWIE, Associate Editor,

141 WEST PRATT STREET,

BALTIMORE, MD.

BALTIMORE, FEBRUARY 1st, 1884.

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Advertisements to secure insertion in the ensuing month should be sent in by the 20th of the month.

Our friends can do us a good turn by mentioning the MARYLAND FARMER to their neighbors, and suggesting to them to subscribe for it.

Subscribe at once to the Maryland Farmer and get the cream of agricultural knowledge.

To Our Patrons.

As we have entered upon our 21st year, we are sure our old subscribers will see the justice and propriety of renewing their subscriptions for 1884, and in doing so, settle all arrearages, if any are due us.

We do hope, as we have no travelling agents, that every old subscriber and every friend of the MARYLAND FARMER will use his or her influence to obtain for this year as many additional subscribers as possible. To prove our desire to extend agricultural knowledge, at the least possible cost, we will furnish our Monthly Journal at the low price of \$1.00 per year, and give to each subscriber who pays in advance a nice premium of one of either of the following books:

Kendals Treatise on the Horse.

Scribner's Lumber Book.

Scribner's Grain Tables.

Horses, Their Feed and Their Feet. (new).

And to such as will add 50 cents extra to the amount due, we will send a dollar book

"Palliser's Model Homes."

Such premiums will reduce the price of the "MARYLAND FARMER" to almost nothing.

For our lady subscribers we have, if desired, that admirable treatise:

"Every Women Her Own Flower Gardener."

Don't Miss It!

Wells' "Rough on Rats." Almanac, at druggists, or mailed for 2c. stamp.

E. S. WELLS, Jersey city.

New First-Class Sewing Machines at Half Price.

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"MARYLAND FARMER."

Having received a fine lot of these Machines, and not being in the Sewing Machine business, we concluded to let our Subscribers have them on above terms. The retail list price is \$50.00.

Any person sending us the names of 25 subscribers with the money, will be entitled to one these splendid Sewing Machines. We will also state any canvasser who undertakes and does not succeed in getting up the full club of 25 subscribers may add \$1.00 for each subscriber short and still get the machine; for instance if the canvasser only gets 20 subscribers, he can forward them with \$5.00 in money and he will receive the machine; and we will further add if some of the subscribers choose to pay for 2 or 3 years, or more in advance, each year will count as a subscriber. We hope our farmers' sons, who at this time of the year, have plenty of spare moments will undertake this liberal offer. And they can also state that we give a Premium to each subscriber.

Farmers!! Attention!!

Such is the happy change of late that has come over the farmers for reading Agricultural Works and Periodicals, that they may obtain intellectual enjoyment at the same time gain knowledge from the experience of their fellow farmers as to the best culture of farm products and the steady improvement in the fertility of the soil, we have concluded to club with several leading Literary and Agricultural Journals for the next year, so that our readers may

have the opportunity to obtain at the lowest possible cost the benefit of other Journals with our own, hence we ask special attention to the following:

The Breeders Weekly Gazette, Chicago, Ill., price \$3.00; with Maryland Farmer, \$3.25.

American Angler, price \$3.00; with Maryland Farmer, \$3.25.

Live Stock Monthly, Portland, Me., price \$1.00; with Maryland Farmer, \$1.50.

Poultry Yard, Hartford, Conn., price \$1.50; with Maryland Farmer, \$2.00.

☞ All payable in advance.

An Appeal to our Subscribers.

If each one of our subscribers would take the trouble to visit a few of his neighbors, and set forth the advantages of the Maryland Farmer, at its very low rate—\$1.00 per year, postage paid, and a premium book, worth by retail 50 cents, he would be advancing the cause of Agriculture, and helping himself by the enlightenment of his fellow-citizens. Every one who will do this and send us the name and address of one or more subscribers, with 75 cents for each name, may be sure that the paper and premium will be sent as directed, thus retaining for his trouble 25 cents for each new subscriber obtained. We make this liberal offer in the full expectation that our list of subscribers will be increased to 10,000 during this year. Our Monthly contains never less than 32, and often more octavo pages of solid reading matter, both useful and entertaining, chiefly made up of original matter from the best agricultural writers of the day, not men merely of scientific knowledge, but practical men, who know of what they talk.

Obituary Notices.

We sincerely regret the death of our correspondent and distinguished fellow citizen, Major Luther Giddings, of Anne Arundel Co., Md. The deceased was a man of enlarged views, and of manners that were so genial and pleasant as to make him popular with all whom he came in contact. He was well-known over the State as a citizen deserving of note, from his varied accomplishments, the prominent positions of public trust and confidence he held at sundry times and his never failing loyalty to principle, as displayed by his valor in Mexico, when following the flag of his country where he obtained his rank as Major, and in after years, as a Southern volunteer, still pursuing the right as he thought. The State has lost a man of worth and of mark; the community a most enterprising citizen; his family and friends one, whose place will not easily be filled in affectionate regard, and our columns will no longer be graced by his practical and excellent writings.

We have also deeply to deplore the death of our old and esteemed friend, Rev. George W. Quinby, D. D., at Augusta, Maine. The deceased was a good man, able preacher, editor of several prominent newspapers, and popular author of many admirable books. We listened to his first public discourse with such pleasure we shall never forget. He was our life-long friend, and we cannot help our grief, altho' like a ripened shock of corn he has been gathered to his fathers.

THE MARYLAND FARMER, only \$1.00 a year, including premium worth 50 cents, making it the cheapest agricultural paper in the country.

"Rough on Corns."

Ask for Well's "Rough on Corns." 15c. Quick, complete, permanent cure. Corns, warts, bunions.

Poultry and Pigeon Show.

The annual exhibition of the Baltimore Poultry and Pigeon Club was held at the Natatorium on Howard street, Baltimore, on Tuesday, the 8th of January, and closed on Saturday the 12th. Notwithstanding the severely cold and horrid weather, there was a large attendance of ladies and gentlemen each day and night, proving how great is the interest felt by the public in such useful exhibits of our beautiful breeds of rare and improved domestic fowls and pigeons. There were no money premiums but awards of merit, to such as were fully deserving, after close examination by experienced and well known breeders and fanciers. This departure from the old customs proved a financial success. One of the prettiest features of this show was the oil painting "Almost Home," exhibited by Miss Smoot, of Alexandria, Va. It is a thrilling scene of a hawk catching a carrier pigeon in full flight, just as he is joyfully returning to his loft from a triumphant trip. In the class of chickens, the light Bramas were very superb; the white Leghorns were numerous and superior. The Houdans of Mr. Pinckney of Western New York, were splendid, and won a \$10 gold special. Dr. Geo. H. Cairnes, Woodberry, Md., received \$15.00 gold, as a special prize for best Asiatic pen of breeding fowls, and Mr. H. F. Whitman was complimented by the award of a \$15 silver cup, for the largest collection of Jacobin pigeons—a fine display of some specimens of this lovely class of birds. Mr. Bromwell showed 14 Swallow pigeons, of fine shape and lovely plumage. The Archangel pigeons, a rare bird in this country, were exhibited by Mr. Wm. Broemer. Their backs and wings are glossy black with balance of a rich bronze. They are closely feathered and have top-knots.

At the head of the room, stood in a lofty cage—Garfield—the famed Carrier pigeon

of Mr. D. S. Newhall, of Philadelphia. This stout, square built bird with but little excrescence on its bill, compared with other like class of pigeons, has lately flown 630 miles, from Indianapolis to Jersey city. This is the most commanding in appearance of strength and endurance, of any bird we ever saw. His plumage is beyond description, being to our perception a delicate smoke color, brightened by a glittering dust of silver, with a few darker markings—the color suitable for the silk dress of any lovely woman, let her complexion be what it might. He is beyond doubt a splendid bird in every way.

Poultry shows are doing much to bring the public to a just sense of the value of these domestic beauties which not only always give pleasure but immense profit to all who give to them the attention they deserve.

We regret that our limits this month prevent us from giving the names of all who received high certificates of merit for the specimens they exhibited, but cannot refrain from mentioning the accomplished President of this Association—Geo. Colton, Esq,—who was the recipient of many honors, and who is justly considered the pioneer and champion in poultry breeding in this State. At some early day we will indulge in the consideration of the immense importance of this home industry.

THE 7th Annual Meeting of the Dutch Friesian Association of America, will be held at Utica, New York, on the 6th instant. Dr. F. W. Patterson, Lochearn, Md. President, and S. Hokie, Secretary. Addresses will be delivered on the occasion by the President, Dr. E. L. Sturtevant, I. H. Hicks, T. D. Curtis, and others.

Catarrh of the Bladder.

Stinging, irritation, inflammation, all Kidney, and Urinary Complaints, cured by "Buchupaiba." \$1.

The Baltimore Exposition.

What has become of the project? The ground was to be bought before the first of January. We have seen nothing of late about the proceedings of the distinguished personages who have taken it in hand. Surely such an important matter should not lag behind, when it has received the active support of the talent and capital of the business men of Baltimore. Each State is moving in this direction, since Georgia and Kentucky so successfully led the way. North Carolina is about to inaugurate a great State Exposition, and Louisiana will astonish the world by her International Expose at New Orleans the present year. Why does not Maryland come to the front also, and in her Monumental City offer such attractions as will bring to her, strangers from all parts of the world, and thereby add to the reputation of the city and the general prosperity of her people? If, as has been often tried, a few men cannot get it up, why not resort, as we have persistently suggested, to a general mass-meeting to enlist the feeling of the whole people?

Montgomery Farmers in Convention.

Notwithstanding the inclemency of the weather, the Lyceum at Sandy Springs, Montgomery co. Md., was filled to overflowing on the 15th ultimo with the farmers of that county, and strangers from Virginia and Maryland, attracted by the fame of these annually and eminently useful meetings. The meeting proved the most interesting that has ever yet been held, tho' that is saying a great deal. After a full discussion of the questions, we enumerated in our last issue for consideration as announced by the Association, the meeting adjourned, with every member, and visitor delighted; each one acknowledging the day had been well spent in social enjoyment, and mental instruction and improvement.

A FLOURISHING AGRICULTURAL SOCIETY:—Mr. C. T. Fox, Secretary of the Berk's county, Pa. Society, has kindly sent us the proceedings of the Society at its meeting, at Reading on the 5th of January, from which we glean the remarkable fact that this Society has on hand a cash balance of \$4,649.04. Pretty good for a county agricultural association and should encourage others to do likewise.

AGRICULTURAL AND MECHANICAL ASSOCIATION OF WASHINGTON CO.—At the annual meeting of stockholders, on the 5th ult. the following officers were elected; President, C. W. Humrichouse; Vice President, Wm. Updegraff; Recording Secretary, P. A. Witmer; Corresponding Secretary, C. F. Manning; Treasurer, B. F. Fiery; Directors, Jno. W. Stonebraker, Philip Wingert, J. B. Bausman, H. A. McComas, Daniel Hoover, Geo. W. Harris, Benj. P. Rench, Dr Jno. T. Grimes, B. A. Garlinger, Geo. M. Stonebraker. A resolution was unanimously adopted authorizing the directors to hold an exhibition on the 13th, 14th, 15th and 16th of May, 1884.

NATIONAL AGRICULTURAL CONVENTION.—The fourth National Agricultural Convention, under the auspices of the American Agricultural Association, will be held at the Grand Central Hotel, New York City, Wednesday and Thursday, February 6 and 7, 1884. Addresses will be delivered and papers read by leading thinkers and writers, on topics of general interest, and all identified with agriculture and kindred pursuits, are cordially invited to be present and participate in the proceedings. Delegates will be present from all sections of the Country and arrangements for reduced rates of fare are being made with the railroads leading into New York. The annual meeting of the Association for the election of officers and the transaction of other business, including the matter of a National Agricultural Fair, will

be held at 12 m. of the first day of the Convention.

These conventions, two of which have been held in New York, and one in Chicago, have become national in their attendance and influence, and features of American agriculture. N. T. SPRAGUE,
JOS. H. REALL, *President.*

Secretary, 35 Park Row, N. Y.

Maryland Agricultural College.

The following letter we copy from the "Washington Star," of 15th January, as it relates to a State institution, in which the people of Maryland have a deep interest, and should be informed at all times of its condition:—

"It may be of interest to parents to learn some facts concerning the management of the Maryland Agricultural College, situated eight miles from here, near the Baltimore & Ohio railroad. While health and comfort are there considered important factors towards the cultivation of the mental faculties of our boys, it is also the aim of the President of that college, to teach morality from the holy scriptures. A gentleman from this city, whose boy is an inmate of that college, but who has no favors or profits to expect from anything he may have to say on the subject, visited the college without previous announcement, and after a careful study of the character of the president, Mr. Aug. J. Smith, found him a gentleman, well qualified for the trust confided to him. He appears to have the singular faculty of inspiring each scholar with a sense of self-respect, and it is simply wonderful how he succeeds in the enforcement of discipline, by persuasion and by showing his personal interest in each and all. Every one seems to feel that he is his friend, and in their happy faces one can read their perfect and willing submission. On examining the kitchen, pantry and dining room, scrupulous neatness and cleanliness as well as comfort were found to exist everywhere. The rooms are large and airy, have single beds, and are occupied each but by two scholars. Altogether it is a subject of pride and comfort to know that our boys can be placed in such a home.

H. BRUGGEMAN, Post Office Dep't.

The Cattle Disease Law.

TO BE PRESENTED TO THE MARYLAND
LEGISLATURE AT ITS PRESENT SESSION.

The Legislatures, both Congressional and State, are now being exercised on the suppression of our cattle diseases, and we anticipate the happiest results from the joint deliberations. It must be admitted that the time has arrived when this subject should be thoroughly ventilated and measures of the most determined and stringent nature adopted to stamp out these frequent visitations, or at least, keep them within a limited area, for unless this is done, we shall certainly have in a few years, such a magnitude of trouble that legislation may prove unable to manipulate it.

We apprehend that every member of the legislature has read the articles which have recently appeared in the journals from the pen of medical gentlemen who are qualified to advise us in this matter, and we feel it a duty to direct attention to the paper read by Dr. Ward, our State Veterinarian, on this subject at a meeting of the Maryland Live Stock Breeders Association last November, which was fully reported in our December issue. From it will be seen that pleuro-pneumonia has been off and on in different localities in the States since 1843—exactly 40 years, which proves that the present laws are ineffective, and with the immense capital invested in live stock, reaching closely to three billions of dollars, it certainly must strike us that this state of things should be resolutely handled.

Dr. Ward asserts that these scourges are due to certain *specific germs* and that the diseases cannot develop, *de novo*; whilst there are some few men who are bold enough to assert that it does so develop. Dr. Ward refers us to the recent investigations of Professor Chauveau of the Veterinary School of Lyons, and those of the

Savant M. Pasteur, which go clearly to demonstrate the germ theory, and M. Pasteur, by direct experiment, has proved the blood or fluids of diseased animals to be *impotent* when these *germs* are removed, and highly potent in its diseased condition. The experiments of these two learned men have proved that a judicious system of inoculation with a modified virus, renders a being or animal, proof against the morbid influences of these specific disease germs. Dr. Ward months ago advocated inoculation, under certain regulations, in our pages, and we hope to see this matter treated by our legislature, so that in case of an alarming outbreak, we may be ready with protective as well as exterminative measures.

We certainly advocate the slaughter of infected animals, and compensation to the owner, but think the inoculative theory may have great value on the animals not infected, or showing evidence, by such tests as an expert would exercise.

However, we refer all interested, to Dr. Ward's concise and precise paper, which we find harmonizes with the other experienced veterinarians' views, who are similarly engaged by the States, and with such professional evidence and advice we await the issue of our legislative deliberations and final action with deep interest.

THE well known "Agents Herald," has changed its name, to "The Public Herald." L. Lum Smith, Proprietor, Phila., Pa.

ERRATA.—Our attention has been called to two typographical errors in Dr. Ward's paper read before the Md. L. S. B. Association, and published in our December Number of 1883. For "hay cholera," read *hog-cholera*, and for "Guarantee laws," read *Quarantine laws*, on page 397.

That Husband of Mine

Is three times the man he was before he began using "Wells' Health Renewer." \$1. Druggists,

THE LINCOLN PATENT CHANNEL CAN CREAMERY, is no doubt a remarkable, labor-saving dairy article. See advertisement in this Number of the Maryland Farmer. Among the host of its admirers as published in the circular of this Channel Creamer, we find the following from a well known farmer near us, Mr. Hall, of Conway P. O., Anne Arundel co. Md. :—

"The Channel Can Creamery I bought of you last March, has given perfect satisfaction, and has fully come up to your representations. We have used ice, and have raised all the cream between milkings. Considering everything, the ease of attending to the dairy, the saving of labor in skimming and washing pans, the control we have over the milk, and the extra quantity and quality of the butter, your Creamery has over and over again paid for itself."

Publications Received.

GARDEN AND FARM TOPICS, by Peter Henderson, 35 & 37 Cortland St. New York. Is the title of a neatly printed volume of 250 pages, of most excellent practical advice as to growing popular bulbs, rose-growing; preparation of lawns; culture of useful vegetables, and strawberries; culture of Lucerne; draining; Hum bugs in horticulture, &c. This little book is well illustrated and written in the same admirable style that the Author is so eminent for in his "Gardening for Profit, and many other excellent books, his prolific pen has given to the world, for its edification, and which have become so popular as to render Mr. Henderson, famous as a household and horticultural friend and authority. We heartily commend this new work to all of our readers.

FROM the U. S. Agricultural Department, the following very valuable reports have been received. "Mississippi; its climate, soil, production and agricultural capabilities." Report for the year of Cereal Crops in Europe, and freight rates of Transportation Companies." Also the proceedings of the National Convention of Cattle Breeders and others, called at Chicago, Ill. Nov. 1883, by the Hon. Geo. B. Loring, Commissioner of Agriculture, to consider the subject of Contagious Diseases of Domestic Animals.

VICK'S FLORAL GUIDE, Rochester, N. Y., for 1884 is an elegant book of 150 pages, 3 colored

plates of flowers and vegetables, and more than 1,600 illustrations of the choicest flowers, plants and vegetables, and directions for growing. It is handsome enough for the centre table or a holiday present. Send on your name and post-office address, with 10 cents, and you will receive a copy, postage paid. This is not a quarter of its cost. It is sent free to every customer of last year. It is this year, brighter and better, if possible, than ever before. America may well be proud of so exquisite an Annual as this, which should grace the home of every lover of flowers and vegetables in our wide-spread country.

Catalogues Received.

BURST'S Almanac and Garden Manual, Philadelphia, Pa. Dillon & Bros. Catalogues of Norman Horses, Normal, Mc Lean Co. Ill.

Peter Henderson & Co.'s Manual of everything for the Garden, 35 & 37 Cortland St., New York. Elegantly illustrated. And a page of designs for flower beds, which are both tasty and deserving the attention of all floral culturists, as it gives the dimensions of the beds, and names of flowers, for each, that would likely show the pleasantest effect to the eye of the beholder.

LOVETT'S ILLUSTRATED CATALOGUE—By I. T. Lovett, Little Silver, N. J. Is the best illustrated, neatest printed, and altogether the most extensive and beautiful that has ever been issued by him for many years past.

B. K. Bliss & Sons, Illustrated Hand Book for the Farm and Garden, is an admirable one for 1884. It is full of instructive reading matter, and profusely illustrated, besides two beautiful colored engravings of Pansies and Carnations. They publish also a richly illustrated monthly, "The American Garden," for \$1.00 a year, edited by Dr. Hexamer, and is among the best of our Horticultural Journals—34 Barclay st., N. Y.

Pleuro-Pneumonia in Maryland.

Our retiring Governor in his message to the General Assembly of Maryland, calls their attention to the necessity, for some amendments to the existing Laws of the State intended to suppress contagious diseases among live stock. To meet this end, the Maryland Breeder's Association, whose roll includes many of our most prominent and influential agriculturists, have for some time been earnestly engaged in the preparation of a bill, which should at the same time accomplish the end sought, i. e. the

complete ridding of our State of all contagious diseases, but particularly that of pleuro-pneumonia, and at the smallest cost and the least annoyance to our citizens. Such a bill the result of a years work of the Association, is now pending before the House of Delegates. That such bill should become a law, none can deny.

For some years past the agricultural press of the country, and many official publications of the U. S. Government, have designated Maryland as an infected State. Some of these publications have gone so far as to speak of Maryland as a "pest house to be avoided," and "that there should be built around Maryland, a wall so high as to prevent the escape of cattle to other States," and that a "little infected district in Maryland, has well nigh destroyed the trade in live cattle between this country and England, a trade involving millions of dollars in value and of immense prospective value to the whole country." "The name of the State (Maryland) has become a by-word, and a reproach among cattle men all over the world." Such are a sample of the publications by which the name of the State has become a "by-word," and our cattle interests are suffering by reason thereof greatly. It is scarcely necessary to say that these publications are exaggerations of the grossest kind, but we have had just a sufficient number of cases of the disease to prevent a successful contradiction. While we probably have no more of the disease than exists in any of the Atlantic States, north of North Carolina, yet from the envy or malice, or some unintelligible reason, Maryland has been so abused as to have acquired probably the reputation of the worst infected State in the Union. We say this reputation is not justified by the facts, but it is believed in Europe and the West of this country all the same, and does us as much harm as if it were true.

There is now pending before Congress a bill, which will probably pass, making it

the duty of the Commissioner of Agriculture to attempt the suppression of this disease. Among its provisions is one, authorizing the Commissioner to put in quarantine any State which shall fail to pass laws on the subject, or whose executive shall refuse to co-operate with the national authorities in their plans and efforts. If this bill should become a law, as it probably will, and our legislature should fail to pass some such law as is now pending before it, Maryland will undoubtedly be put in quarantine at once, and the damage to the business of the State and particularly to Baltimore city will be appalling, with the loss of the coffee and sugar trades, if the cattle trade is added—grass will soon grow in our streets.

The bill now pending before Congress, provides that in those States, which pass laws authorizing the destruction of diseased or infected animals, the Commissioner of Agriculture shall furnish the money to pay for their destruction. It is thought by the strict constructionists, that Congress has no power to order cattle killed while under its power to "regulate commerce,"—it can prevent sales from one State to another. It is necessary therefore that the States furnish the machinery, and the National Government will supply the "lubricating fluid."

These suggestions are made to our Legislature, to show them how very important their action on the pending bill may be. There is scarcely any measure now before their honorable body, or likely to come before them of more importance to the State and City. It is a measure that is asked for by all sections of the State, and by men who have a right to be listened to. Besides the ordinary stock of the State, valuable to the poor farmer, millions are invested by our progressive farmers in highly bred live-stock, the value of which would be almost entirely destroyed, should the State be put in quarantine by the Na-

tional Government. As it is, the business is hampered and its profits much depreciated by the bad name, which unfortunately Maryland in this particular has acquired.

Something should be, and we believe will be done to satisfy the public out side of the State, that we are competent and determined to cope with and stamp out all contagious diseases. This done; Maryland will take her proper rank, in the breeding world. We cannot be excelled in the character of our stock, and, but for this restriction, would have long since taken a first place. We commend this matter to the consideration of our Representatives in the Legislature of Maryland.

To Our Legislature.

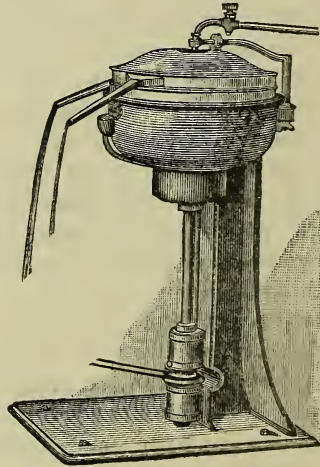
We trust that our law-makers will not waste their limited time in considering Utopian doctrines, but seriously consider such claims as we now urge, and have been, for many years urged upon the judgment and common sense of members of the State Legislature by the hard-fisted, hard working and large majority of the voting people of the State—the *farming population*. Maryland is decidedly an agricultural State, and yet farmers are not encouraged, but oppressed by taxation, to support all other professions. The people demand laws for the protection of sheep, that our people may have warm clothes in winter, and wholesome food all the time, which we are deprived of by allowing freedom to dogs, that are nominally claimed by non-property holders as property, yet pay no taxes. The farmers also desire a restoration of those wholesome laws which prior to the administration of the late Governor they enjoyed, as help allowances for the progress of agriculture in encouraging, and assisting the formation and establishment of Annual Agricultural Associations, and donations to such institutions as are designed for the education of farmer's sons,

that the lights of progress in practice and science, may be spread abroad among our people, especially that overwhelming portion, called the *farmers* of the State. We do trust that the great interest of the substantial people of the State will be no longer overlooked, but that this Assembly will, at least, do impartial justice to its leading constituency, upon whom all the burthen seems to have fallen, without a single share in any favors that may be going.

For Dairy, Creamery and Factory.

EXTRACTING CREAM FROM MILK IMMEDIATELY AFTER IT COMES FROM THE COW, WITHOUT SETTING OR HOLDING.

The De Laval Cream Separator is used by the leading and best butter-makers in Denmark, Sweden, Germany, France and



Great Britain, where it has become a necessity. The first one was imported into this country for M. Theo. A. Havemeyer, the proprietor of Mountainside Farm, at Mahwah, N. J., and which ranks first among the great model institutions of its class in the country, having the largest and best herd of Jersey cattle in the world, and the best equipped dairy. The machine

gave such complete satisfaction to Mr. Havemeyer that he immediately ordered another, and it has become indispensable to him. This is the highest recommendation any implement could have, as Mountainside Farm is not only a great institution, but, in the face of the largest investment on any place of its size, it is a paying enterprise, so carefully and intelligently is it conducted. He is getting 10 per cent. more cream with this separator than his Cooley Creamers will yield.

Mr. Havemeyer's experiments with the De Laval Cream Separator proving so satisfactory, it was determined to introduce it generally in the United States.

Messrs. J. & J. Darlington, the celebrated Philadelphia print butter makers of Delaware County, Pa., whose product commands the highest price of any butter made in the United States, for the quantity made, averaging 85 to 90 cents per pound, were our second customers, and bought two separators. They were so well satisfied with their worth that they have since taken a third machine, and it is well worth a visit to see the three in operation, side by side, skimming the milk from a dairy of 300 as fine cows as the country can show. They are getting 10 per cent. more cream, which pays the cost of one machine every thirty days.

This Separator is endorsed by the Royal Agricultural Society of England.

This Separator has the following advantages:—1. The cream can be separated from the milk immediately after it has been drawn from the cow. 2. No ice necessary. 3. Great saving in space. 4. Greater percentage of butter, as the skim-milk only retains about one quarter of one per cent. of fat. 5. The possibility of obtaining regular separation of the cream from the milk. 6. The use of the milk and cream twenty-four to thirty-six hours earlier than by usual processes, consequently giving products of excellent quality. 7. The construction is simple, and the apparatus easily cleansed; no heavy foundations necessary. 8. Continuous work and small driving power.

The De Laval Cream Separator has taken thirty-five gold and silver medals in Europe within the last four years, including those of the Royal Agricultural Society of England; the grand gold medal, Doeburgh, Holland, 1880; the King of Sweden's prize of honor, Malmo, 1881; Royal Agricultural Society's gold medal, Reading, 1882; York, England, 1883; Gold medal, St. Lo, France, 1882; gold medal, Munich, 1882, and the gold medal at Leige, Belgium, this year.

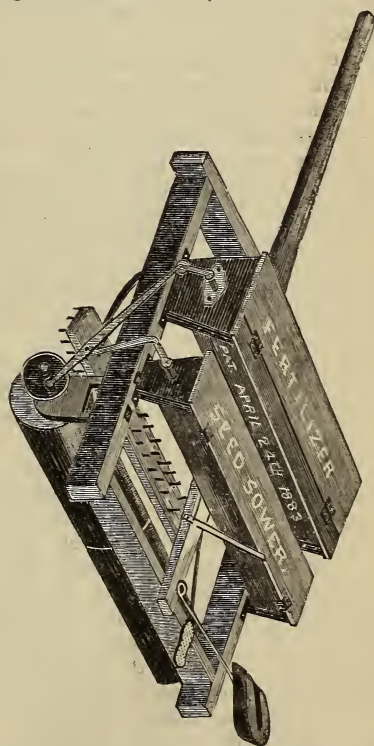
For any further information address the
DE LAVAL CREAM SEPARATOR CO.,
32 Park Row, New York.

T. R. Crane's Combined Machine.

Mantau Farm, Northumberland Co., Va.,
January 7th, 1884.

To Mr. E. Whitman, Editor Md. Far.:—

For many years the farmers have been trying to find out the most prompt and



economical way to improve land and keep it in a profitable condition of fertility. They have tried different super-phosphates as

fertilizers, bone, lime, barn-yard manure, gypsum and kainit, and their experience teaches them that while some of these can be used under certain circumstances to advantage, there is no possibility of permanent improvement to the soil without vegetable matter being used in conjunction. Land that has been long in cultivation under the old *regime*, or exhaustive system, must have its vitality restored by re-supplying the elements that bad cultivation and improvident farming have wasted. To supply this vegetable matter I have found clover the most desirable of all other plants, and to have a good clover sod turned under for any cereal crop, to be the sure plan to improve the land and increase the yield of grain. It is, therefore, of the greatest importance to get the land well set in clover as soon as possible, and to do this with the least possible risk I have perfected a very simple combined machine (which the accompanying cut represents) to complete the preparation of the seed bed, sow the seed and cover them. It was discovered long since that harrowing and rolling fall sown wheat in the spring, as soon as the frost leaves the ground, was of great advantage to the growing wheat crop, the working materially increasing the yield.

By first harrowing and then sowing clover seed, and then rolling, I have found the wheat not only benefitted, but invariably a good stand of clover. The great difficulty respecting the sowing of the clover seed was on account of the weather being so variable in early spring, that it frequently occurred that I could not get the three items accomplished, viz: harrow, sow the seed and roll the land before the weather would change, and it was owing to this fact that I was lead to invent a machine that would complete the entire operation at one time. This implement can be used as an ordinary farm roller, each attachment can be dis-connected from the roller frame in a few minutes, or either can be used with the roller. It is very simple, there not being a cog-wheel about it. The fertilizer and grass seed attachment are worked by a lever and crank, and distribute with great accuracy. Any boy can use it who can drive a pair of horses. Its construction is so simple that an ordinary mechanic can repair. As a roller and harrow combined, it does the work of two implements in preparing land for any crop.

The regular size is seven feet, and with all its appointments is easily worked with two horses. The seat can be adjusted according to the weight of driver, so as to relieve the horses necks from weight of tongue.

Respectfully, &c., T. R. CRANE.

[The above described and illustrated machine,—is to be seen and for sale by Messrs. E. Whitman, Son's & Co., at their Agricultural Warehouse and Seed Store, 141 W. Pratt St., Baltimore, and is also advertised in this Number. The low price and the combined advantages of this machine, will no doubt attract public attention, and be readily sought after by our farmers generally, who desire to sow grass seeds amongst the growing grain this season, with not only regularity but with almost certainty of vegetating and living after coming up.—EDS. MD. FAR.]

MEDICAL USE OF TAR.—Tar is highly useful in various details in sheep management, as in some kinds of topical shelter, and as an application to cuts from clipping and to parts affected by the fly. It serves either alone or in combination with some fatty substance to protect the sore or diseased feet of cattle from being further injured by wet or abrasion, and when spread upon coarse cloth it is a prime covering for broken horns, and makes an excellent application to various kinds of wounds and punctures in cattle. A mixture of equal parts of tar and tallow, by the use of heat, makes a good stuffing for distressed feet, and a mixture of equal parts of tar and lard oil is an excellent dressing for hoofs. A liniment composed of two parts of tar, two of coconut oil, and one of yellow wax, is a good dressing for mange and efficient detergent in most kinds of scabby, eruptive skin affections in the horse, but requires to be rubbed in with a piece of hair-cloth or with a rather stiff brush. The rectified oil of tar, popularly called the spirit of tar, mixed with twice its bulk of fish oil, when well rubbed with a brush every night, on both crust and sole, is an eminently good application for hardness and brittleness in horse's feet.—*Exchange*.

Mother Swan's Worm Syrup.

Infallible, tasteless, harmless, cathartic; for feverishness, restlessness, worms, constipation. 25



once displace many other varieties. The flesh is light^{er} crimson, solid, tender, and of fine flavor. Skin, although smooth, looks as if covered with fish scales.



GOLDEN HEART LETTUCE.—Introduced by W. A. Burpee & Co. Of this nice variety, the "Farm and Garden" says, "it produces heads of very large size, firm and solid, as shown in the illustration. It grows quickly, is ready for use early, and continues to remain in excellent condition for weeks. It does not wilt under severe heat, and for summer use is superior to all other varieties of cabbage lettuce. Outer color dark green leaves, delicately curled; within, the heart is a beautiful rich, golden-yellow; quality excellent."

Among the novelties for 1884, we give the two following cuts, obtained from Benson, Maule & Co., 129 S. Front Street, Philadelphia, Pa.

SCALY BARK WATERMELON.—This melon was first brought prominently before the public notice at the Atlanta Exhibition in 1881. One peculiarity it has especially, and it is a very important one, namely, *it remains in choice eating condition from ten to fifteen days after being pulled.* This makes it most valuable to shippers, as in addition it has a *very tough and thin rind.* Already many growers think, on account of this quality, it will at

Testing Seeds.

During the Winter months the farmer and gardener should look over their seeds and ascertain what they have got that are good quality, and decide what to buy. It is always best to buy seeds early, so as to give time to test them, to ascertain their germinating qualities. This is very easily done, by planting the seeds in a box of earth kept in a warm room. Whatever seeds are planted should be counted, so as to know just what proportion germinates.

In testing seeds, care should be taken not to plant too deep, especially if the seeds be small, and care should also be taken to keep the earth moist, but not too wet. A box six inches wide and twelve inches long, may be divided into eight parts, each part of which will be three-inches square; this will be large enough to plant twenty-five seeds in. Thus eight varieties of seeds can be tested in each box.

The trouble of testing seeds is so slight, that no farmer ought to neglect it. Yet we apprehend that comparatively few do it; but even when they buy seed, plant large fields without knowing the quality of the seed, until it is too late to remedy the evil,

It is not only important to know if any of the seed will germinate, but it is also important to know just what proportion. If by testing it is found that twenty out of twenty-five germinate, it may be considered very good, and only the usual quantity need be planted; but if only fifteen out of twenty-five germinate it may be considered not very good, but if found necessary to plant it an extra quantity must be used. If, on the contrary, all of the seeds germinate, then it may be considered to be seed of extra quality, and not so much should be planted.

In testing seeds more than one trial should be made; if eight varieties of seeds are to be tested, two boxes should be used, and twenty-five seeds of each variety should be planted in each box. In this way a very correct judgment may be drawn as to the quality of each variety.

To plant a large field and lose the whole crop, because the seed is not good, is not only a great disappointment, but it is a great loss, which could have been avoided by a very few moments work. A farmer who thus loses his crop, is entitled to but little sympathy.—*Mass. Plowman.*

THE PULSE OF ANIMALS.—In horses the pulse at rest beats forty times, in an ox from fifty to fifty-five, and in sheep and pigs about seventy to eighty beats per minute. It may be felt wherever a large artery crosses a bone, for instance. It is generally examined (says the *Scientific American*), in the horse on the cord which crosses over the bone of the lower jaw in front of its curved position, or in the bony ridge above the eye; and in the cattle over the middle of the first rib, and in sheep by placing the hand on the left side, where the beating of the heart may be felt. Any material variation of the pulse from the figures given above may be considered a sign of disease. If rapid, hard and full, it is an indication of high fever, or inflammation; if rapid, small and weak, low fever, loss of blood and weakness. If slow, the probabilities point to brain disease, and if irregular, to heart troubles. This is one of the principal and sure tests of the health of an animal.

♦♦♦ Skinny Men.

"Wells' Health Renewer" restores health and vigor, cures Dyspepsia, Impotence, Sexual Debility. \$1.

A Terrible Prophecy.

THE RED SUNSETS, CYCLONES AND
EARTHQUAKES FORETELLING
COMING DISASTER—HOW
TO MEET IT.

The recent mysterious appearances following sunset and preceding sunrise, have attracted wide attention from students of the skies, and the people generally. During the days of recent weeks, the sun seems to have been obscured by a thin veil of a dull leaden hue, which, as the sun receded toward the horizon, became more luminous, the yellow, then orange, then red; and, as night settled down upon the earth, a dull purple. At first it was thought these appearances were ordinary sunset reflections of light, but it is now pretty certain that they are either the misty substance of the tail of some unseen comet, in which the earth is enveloped, or a surrounding stratum of world dust or very small meteors. Professor Brooks, of the Red House Observatory, Phelps, N. Y., has turned his telescope upon these objects, and discovered what he thinks are myriads of telescopic meteors. If it is unorganized world dust, or decomposed vapors, as the *Democrat and Chronicle* of Rochester, N. Y., remarks: "How is this matter to be disposed of? Will it settle and form a deposit upon the earth, or remain a partial opaque shell about the earth to cut off a portion of the sun's light upon it?"

Whatever the mystery is, there is no denying that some very strange forces are at work in the upper airs. The terrible tornadoes and cyclones which have swept our own country, and the fearful volcanoes and earthquakes, which have destroyed so many cities and thousands of people—the tidal waves which mysteriously rise and fall on coasts hitherto unvexed by them—the tremendous activity which is evident in the sun by the constant revelation of enormous spots upon its surface—all indicate unusual energy in the heavenly bodies.

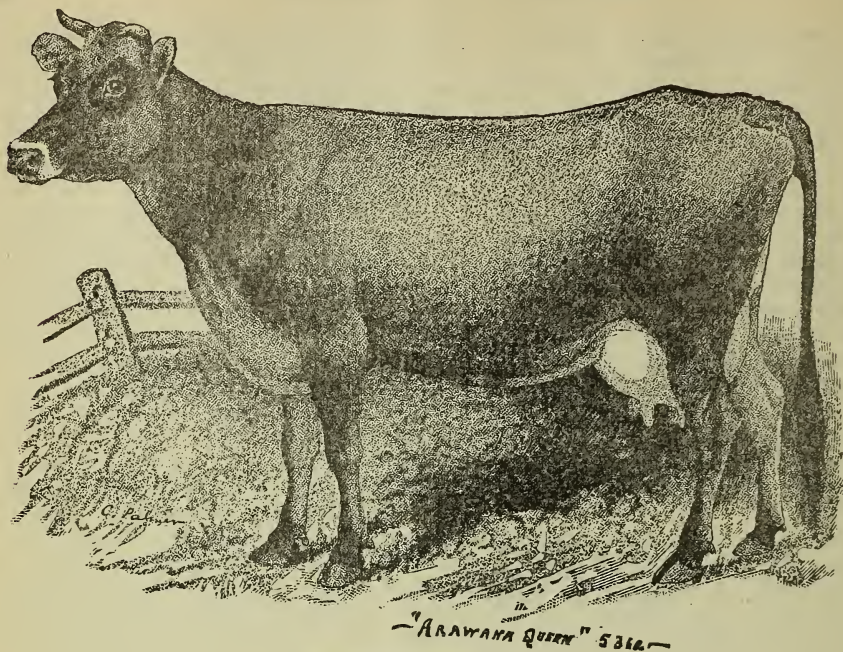
These circumstances recall Professor Grimmer's prophecies that from 1881 to 1887, the passage of the five great planets—Mars, Neptune, Jupiter, Uranus and Saturn—around the sun would produce strange and wonderful phenomena. He says: "The waters of the earth will become more or less poisonous. The air will

be foul with noisome odors. Ancient races will disappear from the earth." He attempts to prove his prophecy by the fact that in 1720, when Mars and Saturn made their passage around the sun coincidentally, great destruction and mortality visited all parts of the globe. He also found the same results in previous perihelion passages of the planets, and argues that these circumstances always produce epidemics and destructive diseases which will baffle the skill of the most eminent physicians; that the poor will die by thousands, the weak and intemperate falling first, those whose blood has been impoverished by excess of work or dissipation, next and only those who are in comparative vigor shall escape to enjoy the era of renewed activity and prosperity which will follow the period of destruction.

Inasmuch as the entire world seems subject to the sway of the heavenly bodies, no part of the earth, he thinks, can escape scourging. He even predicts that America will lose over ten millions of people; that farmers will be stricken with fear and cease to till the soil; that famine will make human misery more wretched. That hundreds will flee to overcrowded cities, for aid in vain. That sudden changes in ocean currents, temperature and surroundings will entirely transform the face of nature and climate of countries; that the air will be so foul with malaria and other noxious gases, that those who survive will be troubled with disorders of the digestive organs. That many who escape other ills will bloat with dropsy and suddenly pass away, while others will grow thin and drag out a miserable existence in indescribable agony for weeks. Neuralgic pains in different parts of the body will torment them. They will easily tire and become despondent. A faint, hot feeling will be succeeded by chilly sensations, while hallucinations and dread of impending ill will paralyze all effort. "The birds in the air, the beast of the field and even the fish of the sea will become diseased, poisoning the air and poisoning the waters of the globe." We are told on the other hand that those who shall pass through this period of trial, will have larger enjoyment of life and health. The earth will yield more abundantly than ever before. The animal kingdom will be more prolific, and life prolonged very materially. This prolongation of life will be owing to

the healthy electric and magnetic influences that will pervade the atmosphere. It would perhaps seem that the present redness of the sun, and the presence of a belt or veil of cosmic matter, justified in a measure, the prediction of Professor Grimmer, but disturbing as his prediction may be, we are told for our comfort, that the strong and pure blooded need have little to fear in these calamities, that those who are delicate or indisposed, should adopt means to keep the system well supported and the blood pure, and that the most philosophical and effective method of accomplishing this, is to keep the kidneys and liver in good condition. From the testimonials of such men, as Dr. Dio Lewis, and Professor R. A. Gunn, M. D., Dean of the United States Medical College, New York, and thousands of influential non-professional people. It seems almost certain that for this purpose there is no preparation known to science equal to Warner's Safe Cure, better known as Warner's Safe Kidney and Liver Cure. This medicine has acquired the finest reputation of any preparation that was ever put upon the market. It is a radical blood purifier, which soothes and heals all inflamed organs, strengthens the nervous system, washes out all evidences of decay, regulates digestion, prevents malassimilation of food in a philosophical and rational manner, fortifies the system against climatic changes, and malarial influences, and the destructive agencies, which seem to be so abundant in these "evil days."

It is not our purpose to dispute the correctness of Professor Grimmer's prophecies. As we have said, the marked disturbances of the past few years, would seem to give a semblance of verification of his theory. It is certain, as above stated, that we are passing through what we may be regarded as a crucial period, and it is the part of wise men not to ignore, but to learn to fortify themselves against the possibility of being overcome by these evils. It is a duty which each man owes to himself, and his fellows, to mitigate as much as possible the suffering of humanity, and in no way better can he accomplish this purpose than to see to it, that he, himself, is fortified by the best known preparation in the strongest possible manner, and that he exert the influence of his own example upon his fellows to the end, that they, too, may share with him immunity from the destructive influences, which seek his ruin.



Arawana Queen, 5368.

LIVE STOCK REGISTER.

WE give the above cut of a nice Jersey cow, owned by Mr. J. E. Phillips, 306 W. Pratt street, Baltimore. Mr. P. residing in the city, is the proprietor of a fine farm in the county of Baltimore, and has a choice lot of pure Jersey cattle. The cow Arawana Queen as truthfully portraied above, is in color a solid gray fawn, black tongue and switch, was dropt November 7th, 1876.

Her sire was the famous Rex, 1330; her dam, Arawana Rose 3810. She was tested in June, 1883, from the 14th to the 21st, being seven days exact, and gave 369 pounds of milk, making 16 pounds, 9 ounces of butter. We further learn that Mr. Phillips has in his herd five cows that are included in the fourteen pound per week class. This is remarkable, and perhaps the reason why he makes large sales, at high figures. Arwana Queen, dropt a bull calf—Count Oxford 2nd—May the 2nd, last year and has been sold already

at a commanding price to Mr. Charles Huston, Coatesville, Pa. He has sold also another bull calf lately to Mr. Oler, of Baltimore city at a high figure.

It will be remembered that Mr. Phillips at the Md. State Agricultural Show last fall, took first premiums for best pen of heifer Jersey calves, and sold six of them under six months old for over \$1,000, beside others, realizing \$1,500, for a few calves. We mention this to show how valuable are our Maryland Jersey cattle, and that the owner of Arawana Queen is not behind our famous breeders of that popular dairy stock.

For the Maryland Farmer.

Chester White Swine.

For quite a while this fine breed of swine was held in suspicion, by those who did not know them, as they were supposed to have been of such recent origin as to be incapable of producing their kind with regularity and precision, some claiming that they had, therefore, no right to be called a "breed." Even now there are a few who

still hold the same views in regard to them. Those who have bred them for a number of years, and who have had, naturally, an opportunity to know the Chester White as it really is, fully appreciate the merits of this breed, and are seldom willing to give it up in favor of any other.

Those who wish the very refinement in swine will naturally take the small English Yorkshires, which however, require the very best of care, food and treatment to enable them to do their best and to keep free from sickness or disorders. The Chester White, in its purity, is hardy and vigorous, and its color—pure white—makes it desirable to many who do not like a black or a dark, or a spotted animal. They have good coats, which protect from the changes of weather and goes far towards insuring freedom from a much dreaded disorder, the mange. They can be readily fattened at any age, from six months upwards, tho' they are more profitable when kept until at least ten or twelve months old, and will improve profitably until they are about eighteen months old. To secure the best results, the young sows should not be permitted to be served by the boars, until the former are at least six months of age, else they will always be small and under-sized, producing poor offspring and small litters. The saving in time is more than lost by breeding the sows too young. A good brood sow can be kept for several years, will produce better pigs each succeeding litter, and will be found to be as profitable as any other brood animal on the place.

A pure bred Chester White, a fine specimen, should be heavy in the hams and shoulders; the back should be broad and as straight as possible; the head should be broad, the nose comparatively short, and occasionally dished in the face; the jowls should be large and full, the ears moderately small and generally carried lopped, or pendant. The legs should be well set under, strong, muscular and short. The hair should be rather fine generally straight and free from care (fine, curly hair,) and in goodly quantity. Any spots whatever, of any color, are not admissible, and indicate impurity of blood and breeding.

Chester Whites are good animals to cross on common sows, and those breeders or farmers who do not care or wish to breed pure, can secure very good results by using choice, pure-bred boars on the best common sows on the farm.

E. JR.

Experiment Station.

Several of our States have "Experimental Stations," and they have proved—when well conducted and liberally supported—of great benefit to the whole people of the country. In New York there is a prominent one, in charge of Dr. E. L. Sturtevant, who has added to his former reputation by eliciting much valuable information by his experiments during the past year. The State of Connecticut has one of these Institutions which we visited last summer, and found it under the control of Prof. S. W. Johnson, and is probably the best equipped with all necessary apparatus for making proper analyses of agricultural products, and the means of production, of any like institution in this country. The State has contributed to it, since 1877, about \$80,000, for the furtherance of the object for which it was established. Beside, it receives \$2,000 or more a year for analyzing commercial fertilizers under a State law.

We know of no State more favorably situated than our own for the establishment of a Station of this character. Our State has already a large monied interest in an Agricultural College, which owns a sufficient amount of land and many or nearly all the equipments necessary for such a "Station," with a force of trained professors nearly enough to fill the whole corps necessary for a fair working of such an institution. If, then, our law-makers deem it proper to establish such an Experimental Station, we apprehend there is no unprejudiced mind to be found but what will say that it should be located at the Maryland Agricultural College, where all could reap the fruits of its work.

Should our Legislature determine to restore the annual appropriation formerly enjoyed by the college for the benefit of the sons of the farmers of Maryland, (which we confidently expect will be done) and desire to establish an Experimental Station,

it can be done at less expense by making it an adjunct of the college than if started where the State has none of the necessary appliances for such a project as it has at the college, and which is near the centre of agricultural learning at Washington, where much assistance can readily be had.

While we admit the great value of Experimental Stations to the farming interest, we do not advise at the present time that our State should embark in such an enterprise, to cost from \$18,000 to \$20,000 at the least to begin with, and incur the further expenses of \$8,000 or \$10,000 ever after, annually. We think that an Experimental Station in our midst would add but little to the accumulated discoveries in regard to plants and their food, that are now being made at the Stations already established by other States, and which are published for the benefit of our people, and to the world, which are given in all our daily and agricultural papers, from which our people derive as much real benefit as if they were burthened with a heavy tax to have a Station of our own to do in the end, no more than what is already being done for us in common with the rest of the farming world.

Let us rather, help further the Institutions of learning and agriculture we have, than to neglect them, and build up new ones. Let us for a while rest contented to reap the advantages that our neighbors offer, before we incur a heavy expense to learn just what is given to us gratis.

If however, it is thought to be best to have one, then we think, a sound discretion would dictate that it be placed at the State Agricultural College. We feel it our duty as a monthly organ of the farmers of our State to throw out these views for the consideration of our representatives in the Legislature of Maryland.

GARDEN AND FARM TOPICS by Peter Henderson reviewed on another page, can be obtained at this Office.—Price, \$1.50.

Maryland Agricultural College.

The following letter from A. J. Smith, Esq., President of the Maryland Agricultural College, has just been received, or it would have occupied a more prominent position in our Journal, deserving as it does the serious consideration of our present Legislature and the farmers of the State:

Maryland Agricultural College,

January 15th, 1884.

Editor Maryland Farmer:

In accepting the kind offer of your columns, I propose, in the discharge of duty, to submit a few suggestions with reference to the College and its relation to the agricultural interests of the State.

Agriculture, after long neglect, and unappreciated even by its friends, has developed, within a comparatively recent period into a learned science, and has assumed a front rank among the agencies and factors which determine the civilization, destiny, and welfare of a people. It is conceded by all enlightened Statesmen and nations, that an educated agriculture is the basis of all national wealth and prosperity, because she is the mother and motor of all industrial life. The recognition of these facts has caused the leading European nations to foster this great industry with liberal protection. Millions of dollars are expended annually by them to maintain Educational Institutions, for the purpose of establishing and promoting an enlightened and progressive agriculture, one which would determine by science, and well directed experiment, the greatest productive capacity of the soil for crops most-wise and profitable to be grown therein, and the best mode of preserving it from impairment, and of restoring its vigor and productiveness, when exhausted.

The United States, also keenly alive to her true interests, has learned the importance of encouraging an educated agriculture. Her Department of Agriculture was established in this view, and has accomplished much to advance the interests of her great national industry. Its present head—a man of big brain, broad views, and great energy—has been instrumental in diffusing throughout the country, a wholesome public sentiment, which is producing

practical results of incalculable value to agriculture.

The States too, are moving energetically to build up their great industry upon the advanced and progressive theories. To this end, they have established Agricultural Colleges and have sustained them with generous, financial support. Massachusetts, and Maine in the North, Michigan, and Kansas in the West, and Alabama and Mississippi in the South taking the lead, the latter State having appropriated for buildings, and otherwise as much as \$205,000 within the past three years.

The State of Maryland has established an Agricultural College, which some assert has not thus far realized to the agriculturist, the full measure of usefulness, for which it was created. And yet it is claimed by its friends, that it has accomplished all that its resources could achieve. It is useless to discuss these issues. They are dead. Let us bury them. Let us deal with the *living present*. Are the friends of agriculture in Maryland, sincere and in earnest, when they say they wish an educated agriculture? I cannot believe the state of Maryland will permit the agricultural interests of her people to suffer educationally, for want of adequate pecuniary means. What then shall the State do? I can only answer as my judgment and stand-point suggests.

The Agricultural College property embraces 286 acres of land—a fair proportion of it excellent—suited to the requirements of farm cultivation and of such experimental work as would be necessary. Beautifully located upon this property are the buildings which are ample for the educational work to be done, and the requirements of the farm. The College building, proper, is a model in construction for the purpose intended. It is so perfect in its arrangement for, and adaptation to the needs of student life, that I doubt whether, for this purpose, although erected twenty-five years ago, it could be improved upon to-day. It is simply most valuable property. Let the Legislature utilize this property, to build up a model institution for liberally educating agriculture. Let it concentrate at this point, its educational work, in this direction. This location starts with the advantage over all other Agricultural Colleges, of being in close proximity to the National Capitol, where such varied and abundant

facilities and aids can be utilized for the benefit of the College. Besides those furnished by the various Departments, the most eminent lecturers upon scientific and literary subjects, can be readily commanded. The College possesses a fair equipment for its work, in the way of an anatomical collection, and maps, charts, seeds, &c., &c. for teaching Agriculture, and its kindred branches. It also has a chemical laboratory, sufficient for the ordinary demands of instruction. It also owns a valuable library, besides that owned by the "Mercer Literary Society." What is needed to meet the progressive and advanced demand of agriculture, is to broaden the field of education. Make the College conduct the analyses of all fertilizers and soils, minerals, &c., &c. Require it also, to conduct and direct the Experimental Work of all kinds. In the Report of the College to the Legislature, my views are fully defined and elaborated upon this subject. Our plan embraces not only such experiments as are ordinarily conducted at Experimental Stations but proposes to direct experiments in every county of the State, through, and by its representative farmers. This will widen investigation, by subjecting simultaneously every section of the State to experimental work, through its intelligent agriculturists, and thus obtain speedily a great number of facts and results which a single locality, or agency could not furnish in an ordinary life-time.

Now all this needs adequate financial means, but not an amount which should cause hesitation. Funds would be necessary for adding to the Laboratory for analyses of fertilizers and soils, and for the equipment for experimental work. This might be in the form of an annual allowance. I propose in addition to this, and as the foundation and crowning feature of the plan, that the State shall create two scholarships for each Senatorial district, the amount to be allowed the college for each pupil to be \$200.00, and the appointment to be made by the Senator, or the Senator and Representatives from each district. Let it be understood that no one need apply for these scholarships who did not intend to take the full course in agriculture. This would secure, beyond doubt, an educated agriculture for the State, and provide the means and facilities by which the sons of farmers and others, who desire to pursue

agriculture as an occupation, could acquire thorough and enlightened knowledge concerning the science through which they were to earn their livelihood.

With this endowment of the State, these scholarships would be eagerly sought after, and to the college they would constitute a sure foundation upon which to build an educational work, which, as a power and agency for good and usefulness, would be a source of pride and honor to every citizen of Maryland. Very respectfully,

AUGUSTINE J. SMITH.

Prest. Md. Agl. College.

LADIES' DEPARTMENT.

Chats with the Ladies for February.

BY PATUXENT PLANTER.

A FEBRUARY SONG.

"The rivulets now begin to sing
Joyful songs of the coming spring;
In copse and wood the birds awake,
To seek their mates, and their nests to make;
In the lane behind the tree,
Lurking, the bird-catchers see!

Oh, beware! I have a care
Of the limed twig and the snare!
Moist and soft the ground is now,
Turn it over with the plow;
Dig and delve, and sow the seed,
Busy are all hands indeed;
Binding frost may come again,
Snow, to cover hill and plain—

Work away! while you may!
There will come a time for play.
Toddle out, my little man!
Sticks to gather, while you can,
You will want the cosy fire,
Want the flame that leapeth higher,
Though the buds begin to peep,
Winter hath but gone to sleep—

Not for long, stern and strong,
Yet he'll stalk the fields among."

February may be called the baby-month of the year, as it numbers fewer days than any other of the family. As a courtesy it has been given the extra hours over the 365 days in each year, and hence every fourth year it has one day added to its 28, and hence—"Leap Year"—which is the present year. Yet this month is the most of all, remarkable for old traditions and superstitions that are still religiously believed by thousands of people to be true. Such as "Candle Mas" on the 2nd day, when the church of Rome blesses the altar candles, and thence its name. But the superstition is in the very old Scottish rhyme, which says:

If Candlemas day be dry and fair,
'The half o' winter's to come and mair;
If Candlemas day be wet and foul,
'The half o' winter's gone at Yule.

Another old adage says: "As far as the sun shines in the barn-door, so far will the snow blow in"

But the most popular legend, is that the ground hog is supposed to indicate the state of the future part of winter by his actions. He is said to come out of his hole on this day, and if he can see his shadow, he returns to hibernate for six weeks longer. But if he finds a dull, cloudy or dark day, with the sun obscured, he remains abroad, assured that the chief portion of winter is gone. Again, the 14th is called "Valentine's day," when the birds are supposed to select their mates for the year, and men to make overtures of love to the girls of their heart. But as this is "Leap Year" or Women's Year, it is reversed, and girls are privileged to make love to the boys. Why every *fourth* year, femininity is to be thrown aside, is beyond my kin, unless it be that by common consent, woman is to be allowed to have her way once in *four* years. Poor thing! It seems but little, only a fourth of a lifetime to have her own, undisputed way. Alas!—is even that pittance always accorded her, by selfish man—the self styled "Lord of Creation? Bah!

But, young ladies, as you are in command this year, let me beg you to exercise your power with that sweet lenity and thoughtful care for others, which have ever dignified and endeared your sex, in the opinion of all intelligent and chivalric men. During this severe winter, when there are so many calls for charity objects, pray be careful how you accept the almost enforced invitations of young men to go to balls, operas, &c. Remember that the pride of many a youth will induce him to send a \$5 bouquet, and call in a carriage at a cost of \$6, to take the invited one to some such — place of entertainment, which, perhaps takes his whole wages for the week. See what a temptation you are setting before his vanity, to induce him to do wrong, as he dips his fingers in his employer's money till, and remembers his engagement to take you that evening to some fashionable public resort, and at same time he feels the empty pocket book. Remember it is your fascinations that are perhaps leading him astray. Remember too, that every sensible young man respects a woman all the more, who is careful of his way in spending money for her pleasure or profit. See that you accept no present, or expense on your account, beyond what you feel sure his income will justify. All this is said in a true spirit of love for your sex, and to help you to cherish that lofty independence which has always elevated and glorified the character of woman.

We would call attention to the advertisement of the Geo. A. Stone Nursery Co., of Rochester, N. Y., who are in want of more salesmen.